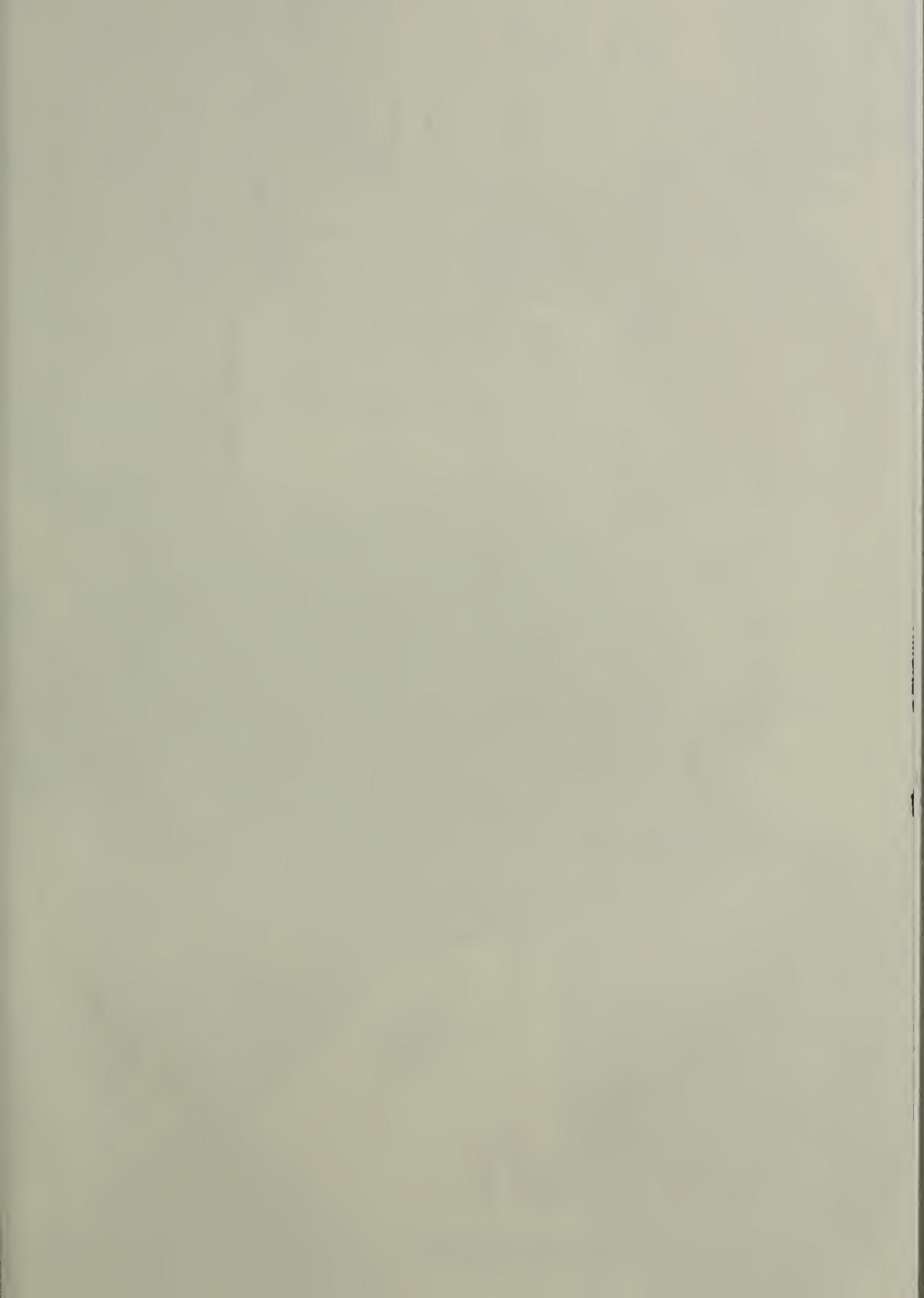


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INDIANA MEDICINE

The Journal of the Indiana State Medical Association

January/February 1996

Vol. 89, No. 1

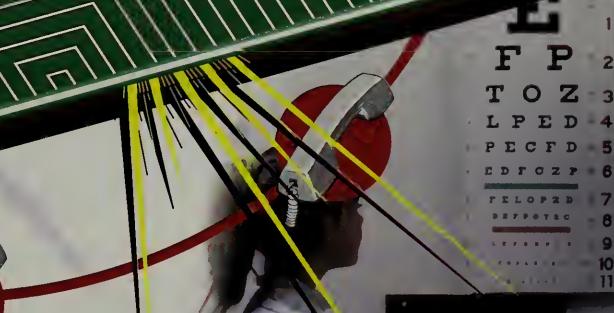
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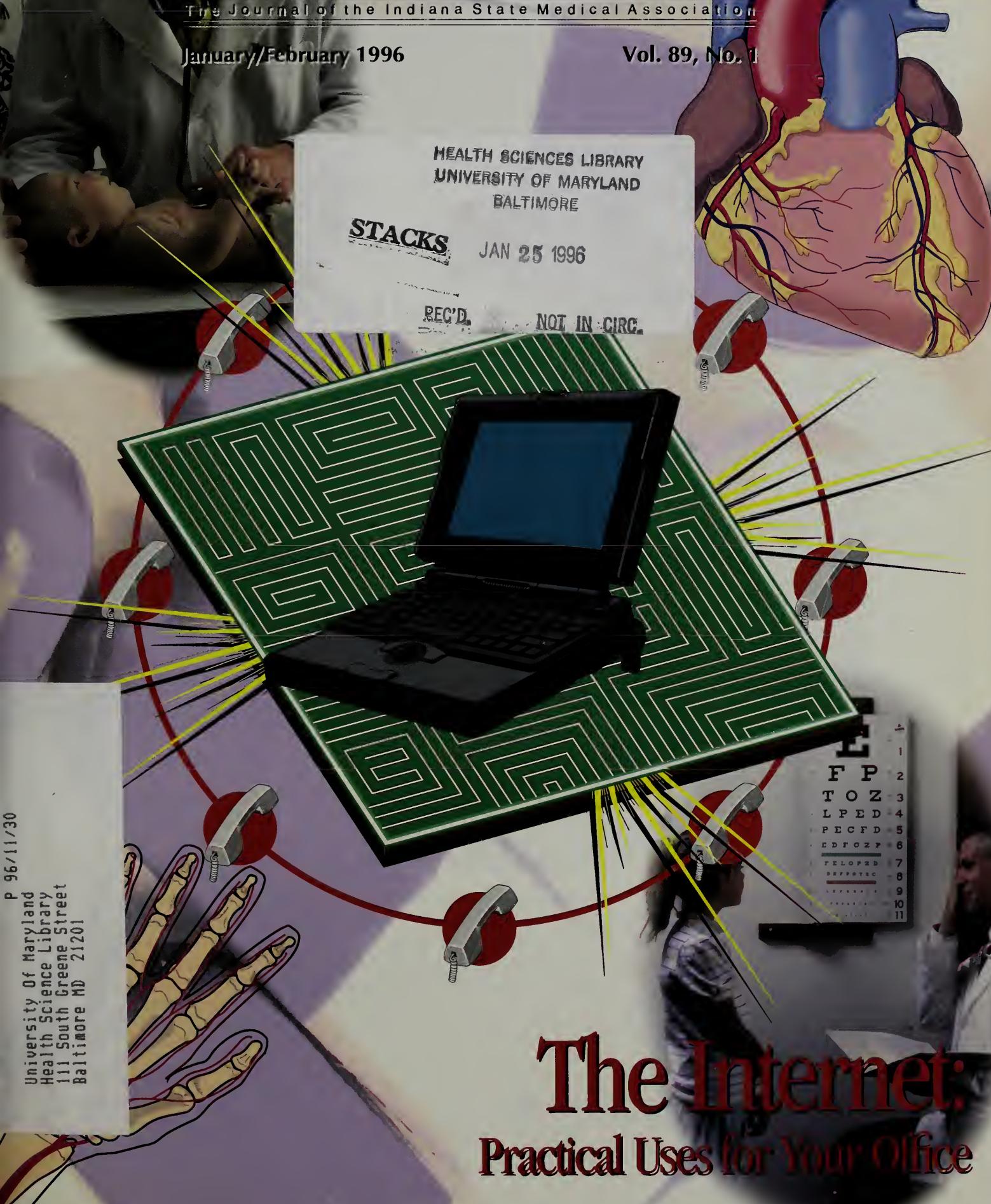
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INDIANA MEDICINE

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Cover design by Greg Albright
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State legislative committee begins investigating EDS

A state legislative committee has begun investigating the problems that health care providers are having with Medicaid claims processed by Electronic Data Systems (EDS). The Medicaid Reimbursement Investigative Committee was created by the Legislative Council of the General Assembly.

For months, physicians and other health care providers have encountered significant delays and errors in Medicaid reimbursement, resulting in bankruptcy in some cases.

The committee will study whether EDS has properly performed the terms of its contract with the state Indiana, determine what legislative and administrative procedures are needed to eliminate Medicaid reimbursement backlogs, delays and errors and investigate any other matter related to Medicaid reimbursement and processing of claims. Sen. Pat Miller, R-Indianapolis, is chairman of the committee.

The committee must make and report any recommendations for proposed legislation to the General Assembly before Feb. 17. The state's contract with EDS will expire at the end of 1996, so the re-bidding process must begin in February. The state then would have two options: open bidding to new contractors or renew EDS's contract for one or two years. If EDS's contract is renewed, the state would renegotiate the terms of the contract, adding more specific responsibilities and stricter penalties if those responsibilities are not met.

Leadership conference open to medical society officers

Spokesperson training and a constituent skills workshop will be offered during ISMA's Leadership '96 Conference. The conference is open to officers of state, county and district medical societies, the ISMA Alliance, the Resident Medical Society and the Medical Student Society. It will be from 8:30 a.m. to 4:30 p.m. Saturday, Feb. 10, at the University Place Conference Center on the IUPUI campus in Indianapolis.

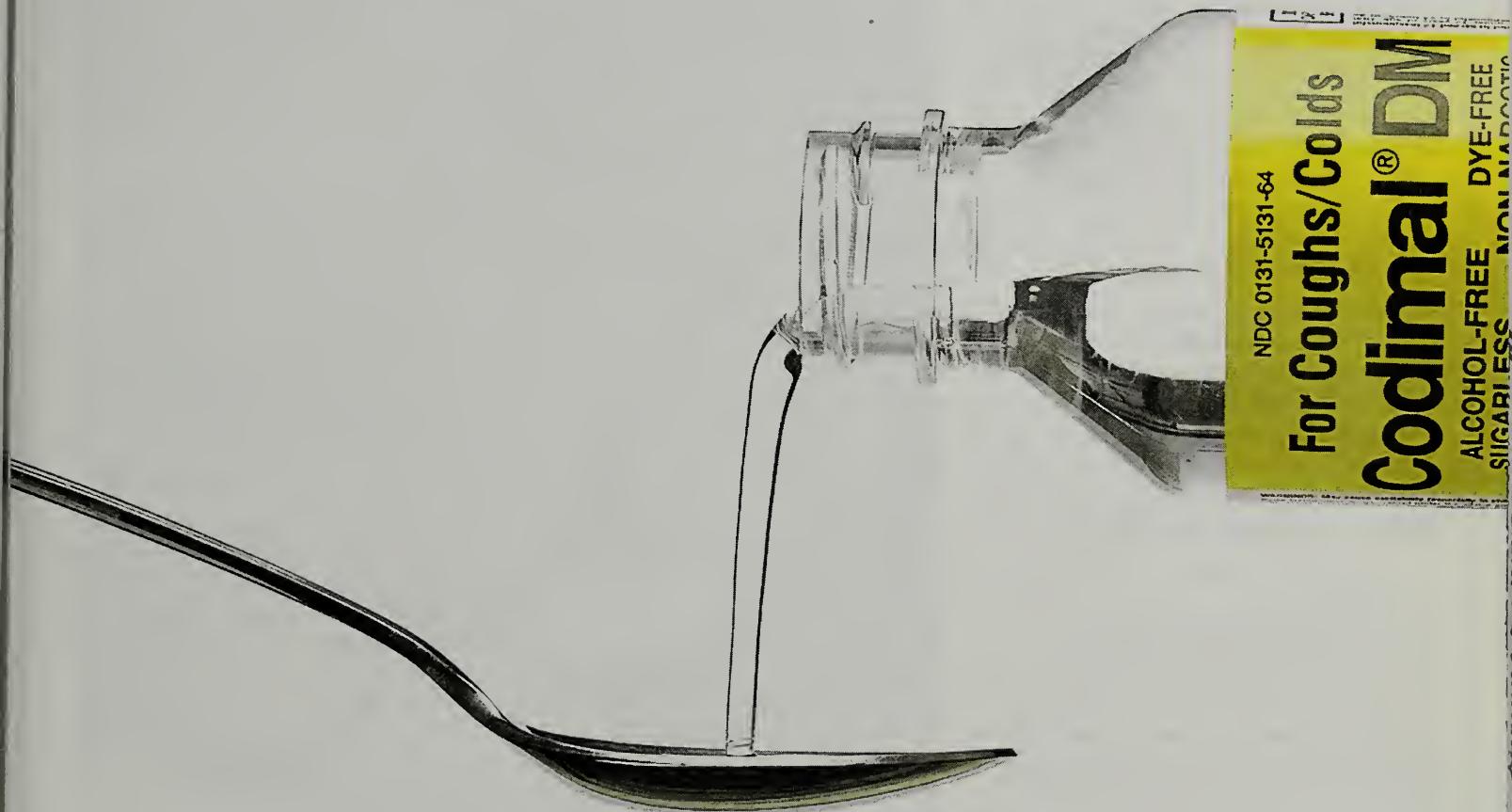
Pat Clark of the American Medical Association will conduct the spokesperson training, which is designed to provide participants with the fundamental skills necessary to speak to groups or do radio, newspaper or television interviews.

Michael E. Dunn, president of Michael E. Dunn & Associates Inc., a public affairs consulting firm based in Washington, D.C., will present the constituent skills workshop. He will discuss how to write an articulate letter that will get your legislator's attention and how to make your representative telephone you for your opinion.

For more information, call the ISMA, (317) 261-2060 or 1-800-257-4762. □

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■ editorial

**George T. Lukemeyer, M.D.
Indianapolis**

Recently I was invited to give a Grand Rounds presentation on "The Essence of Professionalism" at St. Vincent Hospital in Indianapolis. In preparing for the talk, I came across the "Patient-

Physician Covenant" statement prepared by a distinguished group of physicians and published on the Policy Perspectives page of the May 17, 1995, issue of *The Journal of the American Medical Association*. Recognizing that the pressures and time constraints of a busy practice may have allowed this to slip by you unnoticed, we are pleased to

reproduce it here.

It is my firm conviction that the patient-physician covenant is the essence of professionalism. In this tumultuous time of change, I recommend the following statement for your careful consideration:

Patient-physician covenant

**Ralph Crawshaw, M.D.
David E. Rogers, M.D.
Edmund D. Pellegrino, M.D.
Roger J. Bulger, M.D.
George D. Lundberg, M.D.
Lonnie R. Bristow, M.D.
Christine K. Cassel, M.D.
Jeremiah A. Barondess, M.D.**

Medicine is, at its center, a moral enterprise grounded in a covenant of trust. This covenant obliges physicians to be competent and to use their competence in the patient's best interests. Physicians, therefore, are both intellectually and morally obliged to act as advocates for the sick wherever their welfare is threatened and for their health at all times.

Today, this covenant of trust is significantly threatened. From within, there is growing legitimation of the physician's materialistic self-interest; from without, for-profit forces press the physician into the role of commercial agent to enhance the profitability of health care organizations. Such distortions of the physician's responsibility degrade the physician-patient relationship that is the central element and structure of clinical care. To capitulate to these alterations of the trust relationship is to significantly alter the physician's role as healer, carer, helper and advocate for the sick

and for the health of all.

By its traditions and very nature, medicine is a special kind of human activity – one that cannot be pursued effectively without the virtues of humility, honesty, intellectual integrity, compassion, and effacement of excessive self-interest. These traits mark physicians as members of a moral community dedicated to something other than its own self-interest.

Our first obligation must be to serve the good of those persons who seek our help and trust us to provide it. Physicians, as physicians, are not, and must never be, commercial entrepreneurs, gatekeepers or agents of fiscal policy that runs counter to our trust. Any defection from primacy of the patient's well-being places the patient at risk by treatment that may compromise quality of or access to medical care.

We believe the medical profession must reaffirm the primacy of its obligation to the patient through national, state and local professional societies; our academic, research and hospital organizations; and especially through personal behavior. As advocates for the promotion of health and support of the sick, we are called upon to discuss, defend and promulgate medical care by every ethical means available.

Only by caring and advocating for the patient can the integrity of our profession be affirmed. Thus we honor our covenant of trust with patients. □

Dr. Crawshaw is in private practice in Portland, Ore.; Dr. Rogers, who died Dec. 5, 1994, was the Walsh McDermott University Professor of Medicine at the New York Hospital-Cornell Medical Center; Dr. Pellegrino is director, Center for Clinical Bioethics, Georgetown University Medical Center, Washington, D.C.; Dr. Bulger is president, Association of Academic Health Centers, Washington, D.C.; Dr. Lundberg is editor, JAMA, Chicago; Dr. Bristow is president, American Medical Association; Chicago; Dr. Cassel is section chief, Department of Internal Medicine, University of Chicago, Chicago; and Dr. Barondess is president, New York Academy of Medicine, New York, N.Y.

Correspondence: Ralph Crawshaw, M.D., 2525 N.W. Lovejoy, Portland, OR 97210.

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IU dean lists funding

Bob Carlson
Indianapolis

Robert W. Holden, M.D., acknowledges that these are tumultuous times for medicine and smiles with anticipation when he tells you he's looking forward to the challenges. As the new dean of the Indiana University School of Medicine and director of the IU Medical Center, Dr. Holden has his work cut out for him, and he knows it. Federal and state funding is shrinking, research money is harder to come by, and the health care marketplace is becoming increasingly competitive.

He succeeds Walter Daly, M.D., who retired Oct. 31, 1995, after serving as dean and director since 1983.

Dr. Holden, who has been a professor of radiology at IU since 1973, served as chairman of the IU Department of Radiology since 1991. The department implemented a Positron Emission Tomography (PET) program and a teleradiology program under his leadership. In 1992, he was named the Eugene C. Klatte Professor of Radiology, a chair that was established in recognition of his predecessor.

He is past president of the Indiana Roentgen Society and serves on the Wishard Memorial Foundation Board of Directors. He is a fellow in the American College of Radiology and the Society of Cardiovascular and Interventional Radiology. He served on the Board of Scientific Counselors in the Division of Cancer Treatment at the National Cancer Institute from 1990 to 1994 and was a consultant to the National Institutes of Health Radiation Research Program in 1989-1990. He received the Distinguished Alumni Award from the Purdue University School of Phar-

macy and Pharmacal Sciences in 1992 and the Bowen Distinguished Leadership Award from the IU School of Medicine in 1993.

In this conversation with *Indiana Medicine*, Dr. Holden talks about his goals as dean, the challenges of medical school funding, the impending changes in medical education, the IU-Methodist hospitals merger and his views of his new job.

Indiana Medicine: Congratulations on your recent appointment as dean. What are your initial reactions after only a few weeks in this position?

Holden: The office of the dean is busy and people are very gracious. Most of the time, they want support or direction for a specific item. Usually, you can facilitate and help them, and other times, you're looking for a very global change which is going to take some reflection and concept-building. Right now, we're in tumultuous times, with lots of change, and people are anxious. I need an understanding of what their problems are and integrate the problems and resources of the school to establish some global goals and directions.

Indiana Medicine: Do you like the job?

Holden: I'm excited about it. It's a big change from where I've been in the past. In radiology, my interpersonal involvement was principally directed towards a product. The dean's office seems, thus far, much more concept-oriented and reacts to external changes rather than being involved in the day to day evolution of a product. The issues are markedly less able to be fixed with



as top challenge

one quick shot.

Indiana Medicine: What accomplishments of Dr. Walter Daly, your predecessor, would you like to build on?

Holden: During his deanship, Dr. Daly saw a dramatic growth in the research elements of the school. From the time he took over 12 years ago, external peer-reviewed research funding for the school increased something like \$13 million to \$90 million, which is truly dramatic growth. I think we have seen a maturation of a research infrastructure which is truly outstanding. I would like to see that continued and solidified in the face of what I believe will be increasing challenges. I think research funds will be harder to obtain in the future. Society is looking for improved cost-efficacy in health care, education and research, and the medical school will be under challenge to enhance our efficiencies in all aspects of our practice.

Indiana Medicine: Why will research funds be harder to obtain?

Holden: One of the reasons is that health care purchasers, be it employers or insurance companies, are looking for more product and more cost-efficient delivery. They want to buy more and pay less, basically, just like any other consumer. In the past, we have been cost-based in our reimbursement. Whatever it cost, people were willing to pay. Today, people are asking us to significantly decrease our cost, and there's not been that thrust in the past in medicine. If someone was sick, the prevailing philosophy was let's give them the very best that we can. We were not



willing to accept any sort of cost constraints. Today, there's a global societal belief that we can't afford the absolute best for everybody and we've got to figure out where we're going to be more cost-effective. On the other hand, we're not willing to accept that for our mother and father or our family, and so I think that is the major challenge for us.

Indiana Medicine: What are your goals as dean?

Holden: When I was speaking to the medical student council a couple of days ago, I said you are the reason we're here. Medical students are the reason we have medical schools. We are interested in promoting the highest quality education for the medical student. To do that, you need a research component, and you need a robust clinical care component or, in other words, patient base. If you don't have those, you can't produce a product that is going to provide optimal care to the citizenry of Indiana today and in the future. Medical students need to see pa-

tients. They need to see pertinent research that's being done today because today's research is truly tomorrow's practice. If you don't keep them on the front edge, then their education is going to suffer in comparison to other medical schools. So it's really the integration of this totality of patient service, research and education that makes a good medical school.

Indiana Medicine: What are the challenges facing the IU School of Medicine and all medical schools?

Holden: Funding is obviously the major challenge for the medical school today and tomorrow. If you look across the country, 80% of medical schools and their allied teaching hospitals are in some sort of dramatic change – integration with for-profits or with other not-for-profit structures – such as we're doing with Methodist. They're doing that to maintain an income sufficient to allow them to shift costs associated with medical education and to be competitive in the health care marketplace. If they don't have a fairly large volume, or if they don't have endowed funds or philanthropy, then they are really not going to be able to survive in the future in their current structure. We are in a dramatic sea of change.

Indiana Medicine: Any other challenges, or is that one so overwhelming that all the others are small by comparison?

Holden: There's a challenge of becoming more efficient. In the educational sector, in the research sector and in the clinical care sector, we must become more cost-effective. Therefore we must be more

efficient with time and materials. Traditionally, most of our services are labor-intensive, about 50% personal services. That component is driven predominantly by people and the expenses of salaries. I see this impacting the areas of research, teaching and clinical services, which will all become more segmented and more specialized, so that people can be more efficient in what they do because they do it more often and more repetitively. In the past, we've looked at somebody who would be a triple threat, that could teach and could do research and do clinical service. In the future, I think we'll see a more specialized delivery, we'll see people concentrate more on one aspect of their role and not try to do all three.

Indiana Medicine: Who's going to pull it all together?

Holden: Well, that's the dean's and the clinical chairman's job. We can't forsake any one of the three missions. I see that to be the administrative role for our leadership.

Indiana Medicine: What opportunities do you foresee for the IU School of Medicine's Statewide Plan for Medical Education?

Holden: The statewide plan has been very successful. It has brought together the citizenry of Indiana in the acceptance of one medical school for the state. We have proven that regional basic science education is able to produce a quality product at numerous sites. In its 25 years, each site has grown such that it's more facile and better integrated within its parent college or university, such



as Notre Dame in South Bend. Today, each one of the schools is accepted better in its parent institution than it's been at any time. We need to be sure that we markedly facilitate their ability to provide a uniform education equal to others. One of the challenges for us will be to become more communicative. I think that faster transmission for digital information and television is going to facilitate that. Major ATM [asynchronous transfer mode] pipes between our hub and each one of the campuses will dramatically promote our ability to produce a more homogeneous product. The ability to have massive worldwide digital data flow on a very rapid basis, telecommunication such as teleradiology, e-mail or interactive video, will greatly facilitate our ability to reach out to regional centers.

Indiana Medicine: What changes might be made in the curriculum to help train physicians for the 21st century?

Holden: I think society very much wants a change. They want outpatient medicine. They want us to

provide access close to their homes. They don't want to travel to downtown Indianapolis to see a physician. We're going to become more ambulatory in services and access to patients. We're going to move away from being only a tertiary care provider. Our students need to learn first-hand with practicing physician preceptors in an ambulatory setting. We do that currently with our junior medical students that go out into the state and preceptor with family practitioners. We'll see more and more of that with a specialty service as well, in pediatrics, internal medicine and obstetrics and gynecology on the primary care front. Without question, we're seeing a change in medical services delivery away from the hospital to ambulatory offices where tertiary care can be provided in a multi-specialty as well as a primary care setting.

You're going to see us move students away from the medical center per se and into a more regional sort of delivery environment. We must educate students in the practice mode in which they're going to practice in the future, and I believe the future of medicine is going to be far more ambulatory than it's been in the past.

Indiana Medicine: Would you like to make any comments on the IU Hospitals-Methodist Hospital merger?

Holden: I am very definitely a supporter of the merger. I see the merger allowing us an in-patient base sufficient for us to train a subspecialist in a hospital setting. With falling hospital censuses and decreasing in-patient days, we're going to see a dramatic shift to the ambulatory. That makes it much

more difficult to have an interdisciplinary patient population for in-house training of subspecialists, and if we don't maintain a large hospital setting, we'll lose our ability to provide that education. If, for instance, our 400-bed adult hospital fell to 200 beds, as is happening in California, it will make it difficult to have enough patients to train subspecialists, and specifically, it makes it difficult to have the consulting role that we believe subspecialists need to produce a high quality product in an extremely complex case. With the consolidation of Methodist and IU, we believe that the patient base will be sufficient to maintain this educational arena. And that's our principal reason for wanting to do this. Plus, we'll be a more cost-effective health care provider.

Indiana Medicine: Would you discuss the importance of philanthropy to assure excellence in teaching, research and advanced patient care in these times of fiscal constraint?

Holden: As I mentioned before, if the clinical revenues which we currently use to offset the educational cost addition to patient care are not present, and we can't cost-shift from the research arena because of falling research funding, we must turn somewhere to finance the enhanced costs of an educational environment. We really have only two revenue sources: one, taxes, because of the state role that we play; or two, philanthropy. And since the Indiana public and the American public in general are not tending towards increasing taxes at the present time, philanthropy is really one of

the major ways that we see as an available escape for equalizing the private sector versus an academic sector cost for health care training. Under the leadership of Dr. David Smith, we have just undertaken a major capital fund drive which has raised more than \$150 million for the medical school within the past three years. That's a truly remarkable amount and allows us to endow financial support for teachers and researchers and to offset a portion of their salaries. Thus, the costs for teaching and research are decreased, and this promotes the retention of outstanding teachers and researchers in an educational environment and allows us to be on a more level playing field with clinical care costs.

Indiana Medicine: Is philanthropy for medical schools a nationwide trend?

Holden: Yes, philanthropy is becoming much more important and certainly is much more mature in our institution. IU is becoming increasingly well-known throughout the country for the quality of our graduates, and our graduates feel proud of this and are more willing to give to the school, as are satisfied patients. With excellence comes reward.

Indiana Medicine: What would you like to leave as a legacy of your tenure as dean?

Holden: I would like to see us be able to come through these times of challenge with a stronger, more integrated school, providing uniformity in all aspects of its mission; a teaching unit providing a tighter integration of the centers with the

school through better communication channels; a research structure and patient care delivery services that are responsive to the demands of a modern society. Medical education has not changed very much in the last 50 years. We've worked on perfecting what we have been able to do. Society is demanding a change, and I think we must change. The next five years will see dramatic change in our educational processes and it's my desire to not lose quality but enhance quality during this change.

Indiana Medicine: Any other issues that you'd like to share with your colleagues at this time?

Holden: Times are changing. There is anxiety and stress, but we are looking forward to the challenges. Stressful times promote access to leadership and leadership's ability to manage, and I would hope that we can be even stronger in the future with an outstanding school. □

Bob Carlson is a health care writer based in Indianapolis.



The Internet: Practical uses for your office

Bob Carlson
Indianapolis

Thanks to the Internet, you can check on the status of a new pharmaceutical at the FDA in Washington, D.C., and a few seconds later, e-mail a colleague at Austin Hospital in Melbourne, Australia, all from the comfort of your home or office.

The Internet is a network of millions of computers that link users from throughout the world. Actual statistics on Internet users are hard to come by because the numbers are increasing so rapidly. One thing is certain: tens of millions are on-line and the number is growing by the thousands every day.

In response, the computer industry is now coming out with less complex, cheaper personal computers designed not to run spreadsheet or graphics software, but simply to get on the Net. For the first time, the Internet and information-sharing technology totally dominated Comdex '95, the industry's biggest trade show. The personal computer used to be an information processing device. Now it is also becoming a communication tool.

It's hard to overstate the Internet phenomenon, not only because of its unprecedented growth, but because it's all-pervasive and it's global. Government agencies, business entities, the military, academic institutions and professional associations – from around the country and around the world – are on-line. You can riffle through on-line versions of such publications as *The Wall Street Journal*,

many American Medical Association publications, the *Journal of the National Cancer Institute*, the *New England Journal of Medicine* and the *Morbidity and Mortality Weekly Report*. You can access electronic bulletin board systems, news groups and listservs on every conceivable topic. You will also find shopping, commerce, news, advertising, entertainment and games.

With virtually anybody and everybody on the Net, subscribers now have access to more information and interactive communication than anyone wants or needs. Or, to put it another way, if the Indianapolis-based Bob and Tom morning radio program has a home page on the Internet, can the Internet possibly be of any practical use to Indiana physicians?

To find out, *Indiana Medicine* talked to five practicing Indiana physicians who have been using the Internet. First, however, to appreciate their comments, advice and caveats, here's a brief introduction to the Internet. (Also refer to glossary on page 13 and list of resources on page 15.)

How did it begin?

Before there was an Internet, there was the Advanced Research Projects Administration network, or ARPANET. Begun in 1969, ARPANET linked the U.S. Department of Defense, military contractors and academic institutions involved in military-funded research. It was designed to withstand nuclear attack by rerouting communications through surviving links. The principle that every terminal in ARPANET could communicate with every other terminal is the concept that evolved into

the Internet.

The Internet is really a large network of smaller university, business, military and science networks in the United States and other parts of the globe. It consists of LANs (local area networks), MANs (metropolitan area networks) and WANs (wide area networks). Most personal computers are connected to the Internet through a university, through one of the major commercial on-line services or through a local Internet access provider (using ordinary telephone lines and modems).

On-line service providers such as America Online or CompuServe are independent commercial entities that market an appealing menu of interactive computer services to subscribers who pay a monthly fee. Most of these services include Internet access as one item on their menus.

What can it do?

What you can do on the Internet falls into three basic categories. Electronic mail, or e-mail, is the most commonly available and most frequently used Internet service. E-mail is fast, it eliminates phone tag, it simplifies documentation, and it lets your computer do the filing. E-mail applications also include electronic bulletin board services (BBS), subscribed mailing lists and listservs, all of which facilitate electronic communication ranging from gossip to professionals talking shop.

The second basic Internet service is remote log-in (telnet), which allows you to browse a remote computer. This is the Internet application you would use to access the dermatology database at the

University of Erlangen in Germany, which includes full color images of various skin conditions. At home after dinner, you would use remote log-in to browse through "Glasnost," an on-line exhibit of documents from the former Soviet Union at the Library of Congress.

The third basic service on the Internet is file transfer (ftp). This is the Internet application you would use to download a file from another computer onto your computer. If the file represents a substantial chunk of data, such as a full color image, it may take minutes to download, depending on the bandwidth of the transmission line and the speed of your modem.

Navigating the Net

An electronic database can sometimes be accessed in several ways, some of which bypass the Internet. If you have an account with the National Library of Medicine (NLM), for example, you can search its 7 million item Medline database by dialing an 800 number that connects your computer directly to the NLM computer. The entire NLM database is also available on CD-ROM. If you subscribe to CompuServe, which provides Internet access, you can access Medline through Paperpurchase. Physicians' Online, sponsored by pharmaceutical firms and managed care organizations, is accessible at no charge to physicians on the Internet and offers unlimited free Medline searching.

Navigating on the Internet is becoming more efficient and less time-consuming, thanks in part to the World Wide Web (WWW) and navigation tools (browsers) such as Netscape and Mosaic. A subset of the Internet, the WWW is a search

Internet glossary

The Internet has spawned a new language. Here are definitions of some of the terms used in the accompanying story:

bandwidth: capacity for transmitting digital data; expressed in bits per second, as in 64 Kbps (64,000 bps) or 1.54 Mbps (1,540,000 bps).

BBS (Bulletin Board System): a software program that accepts connections and provides services such as e-mail, distributed conferencing, database access, file transfer and on-line chatting.

CD-ROM (Compact Disc-Read Only Memory): digital compact disc used to store large collections of data, such as reference materials.

download: to transfer an electronic file from one computer to another computer's hard drive.

ftp (file transfer protocol): a standard for sending files from one computer to another computer.

hypertext: text in a computer document that contains embedded links to another document on the World Wide Web.

informatics: a field of study about problems and issues in communications and computer technology.

listserv (listserver): software programs which manage computer mailing lists; also referred to as discussion groups.

modem (MODulator/DEModulator): converts digital data to analog signals and vice versa; used to transmit digital data over telephone lines.

multimedia: documents that include data in different forms, such as text, sound and images.

Netscape: popular Web browsing software.

server: a computer that provides a service to other computers in a network.

Telnet: a standard for accessing a remote computer system.

WWW (World Wide Web): growing part of the Internet that uses hypertext. □

system that uses hypertext to link related topics. A mouse-click on hypertext, which is usually displayed in blue, automatically displays one or more new Web sites related to the topic in the text. More and more Web data are also available in multimedia form, including information in audio and video form. Not surprisingly, the Web is growing at warp speed.

Some physicians already have Internet access through the hospital or academic institution where they work. Many more are logging onto the Internet on their own. As many as 30% of all Internet users may be physicians. In some parts of the country, physicians are already using e-mail to renew prescriptions, make referrals, handle questions about minor ailments and communicate test results to their patients.

Here's what some Indiana physicians are doing on the Internet.

William Cordell, M.D.
Director of Emergency Medicine Research and Informatics
Methodist Hospital
Indianapolis

After the speed of the Massachusetts Institute of Technology server, the 14.4 Kbps modem he uses back home in Indiana was somewhat of a letdown. He was spoiled, says Dr. Cordell, by his first experience with the Internet as a National Library of Medicine Fellow in June of 1994. Since then, he has become an enthusiastic proponent of the Internet for physicians. He describes the Internet as the hottest area in information technology right now and says he has never seen anything proliferate as rapidly.

Dr. Cordell spends most of his

time on the Internet doing research in pain management and informatics and communicating with colleagues in the United States and other countries. He has Internet access through Methodist Hospital, which is developing a home page on the Web, and at home through America Online and CompuServe. Dr. Cordell confesses that he also enjoys just browsing the Internet, but warns that it can be addictive.

Because of severe time constraints, consulting the Internet is not yet practical for real-time searches in the emergency department, although Dr. Cordell sees that changing. He does have his computer running in his office next door, however, and participates in a listserv on critical care and emergency medicine. He also uses the National Library of Medicine database, which the Methodist Hospital Library has on a local network computer, accessible by telnet from his office or home.

How can the Internet help a medical practice? His number one use is e-mail. "You can communicate with colleagues rapidly using the list servers, getting into specialty groups that have common interests and throwing questions back and forth," says Dr. Cordell. He is increasingly using the WWW to search for grant opportunities as well as researching clinical topics. He cautions that, except for established sources like the NLM, there is no guarantee about the reliability of much of the information on the Internet.

His advice to physicians is take the Internet seriously for CME and patient care and start viewing computers as communication devices. He also confesses he will be thrilled when his 15-year collection

of medical journals becomes available with full text and graphics either on-line or on CD-ROM. "Then maybe my office will stop sinking," he says.

Greg Hindahl, M.D.
Partner, Mount Pleasant Family Practice
Co-Director, Deaconess Hospital Family Practice Residency
Evansville

Although he's been on the Internet for only three months, Dr. Hindahl has been using Physicians' Online, which can also be accessed by dialing in, for over a year. Physicians' Online is sponsored by pharmaceutical companies and managed care organizations and is free to physicians. Dr. Hindahl especially likes the fact that it includes free searches of the National Library of Medicine Medline database, which he has been using a lot. He says he finds information on Medline that may not appear in journals for months. Recently, he was able to enroll one of his patients with sucrose isomaltase deficiency, for which there is no medication, in a study being conducted at Boston Children's Hospital. Were it not for Medline, he says he would not have known about the study.

Dr. Hindahl is clearly excited by what he is finding on the Internet. There's an Emory University Web site which offers access to more than 2,000 on-line medical journals and thousands of other medical Web sites, including the National Institutes of Health, the Centers for Disease Control and Prevention and the World Health Organization. He says it took him less than a minute on the Internet to get the CDC's current immunization policies for his residents at Deaconess Hospital. He found a

variety of patient educational materials prepared by the American Academy of Family Physicians that can be downloaded, printed and used by physicians at no charge. He also came across a forum in which several physicians discussed the relative merits of various practice management software programs.

"It's a lot of fun," says Dr. Hindahl, "but probably the best thing about the Internet is that it gives you access to almost anything you need to know within a few minutes."

Some clinical Web sites are limited only to physicians, but most are accessible to anyone on the Internet. Dr. Hindahl believes the dangers of patients trying to diagnose themselves are far outweighed by the benefits of educated patients. He says several of his patients with Internet access have educated him, like the woman who told him about an experimental drug for severe MS.

"I would say after a little bit of experience, it's very easy to use," says Dr. Hindahl. "I can see where the things I'm getting from the Internet are going to allow me to take better care of my patients. There's also a tremendous amount of research, and I'm going to be able to use that with our residents because I'm the faculty member of our research committee."

Lawrence Judy, M.D.

Internal medicine

Welborn Clinic

Evansville

When he has tough questions, Dr. Judy goes to his computer.

He cites the example of a patient with a high eosinophil count and a skin rash. It wasn't clear whether she was having an allergic

reaction or whether it was something else. By accessing the National Library of Medicine, he was able to quickly sort through a lot of articles on eosinophilia, a lot faster, he recalls, than trying to find textbooks in the library and going through the indexes. He says it was probably eosinophilic leukemia, and was ultimately fatal.

For that search, Dr. Judy says he used Paper Chase, a search program developed at Beth Israel Hospital in Boston and accessible

through CompuServe. He started using Medline through CompuServe in the mid-1980s and also uses the NLM's Grateful Med search program.

With a computer and access to electronic databases, it often takes only minutes to answer a patient's question and stay current on pharmaceutical products. Dr. Judy remembers a patient who brought in a bottle of pills neither he nor his pharmacist recognized. He went to his computer and, using Paper

For more information

Internet Service Providers (ISPs)

There are dozens of ISPs in Indiana, with more popping up every week, that service one or more area codes. For a comprehensive listing of ISPs in your area, call Dean Riddlebarger, general manager of IQuest Internet, an ISP in Indianapolis, at (317) 259-5050, ext. 1. He also has some useful caveats about Internet access for medical offices.

Online service providers

America Online (AOL): 1-800-227-6364
AT&T Easy Link: 1-800-242-6005
CompuServe: 1-800-848-8199
Delphi: 1-800-544-4005
GEnie: 1-800-638-9636
MedWorld: 1-800-633-9532
MCIMail: 1-800-444-6245
Physicians' Online: 1-800-332-0009
Prodigy: 1-800-776-3449

Books

- *The Internet for Dummies* by John R. Levine and Carol Baroudi (IDG Books, \$19.99). If the title strikes a chord, this could be a good choice.
- *The Online User's Encyclopedia: Bulletin Boards and Beyond*, by Bernard Aboba (Addison-Wesley Publishing Co., \$32.95). Encyclopedic but readable, with a Quickstart section.
- *Physicians' Guide to the Internet* by Lee Hancock (Lippincott-Raven, \$29.95). Basic information and a list of medical resources on the Internet.
- *The Whole Internet User's Guide & Catalog* by Ed Krol (O'Reilly & Associates Inc., \$24.95). Endorsements by lots of important people. Comprehensive. □

Chase, found three articles that confirmed the efficacy of the medication. In less than 10 minutes, he was able to recommend the pills to his patient and send him on his way.

Dr. Judy also accesses the American Informatics Association's forum and the American College of Physicians ACP Online through CompuServe. Like Dr. Hindahl, he dials up Physicians' Online.

"I'm curious and I find it very satisfying to be able to deal with computers as part of daily life," he says. "I think most physicians are generally curious people. They're certainly capable of taking on intellectually challenging topics. Just to become a physician requires a good deal of intellectual effort, and I don't think there's anything about computers that physicians couldn't handle. For some people it may be new, but they can learn if they can see how it benefits them."

James Krueger, M.D.
Internal medicine
Welborn Clinic
Evansville

When he began to explore the Internet almost two years ago, Dr. Krueger's goal was to find out whether it was useful to physicians on a daily basis, so useful that they would prefer it to CD-ROMs or the library.

Although he sees medical information becoming more organized on the Internet, in general, he does not consider it useful to physicians on a daily basis at this time. Still too much chaff and not enough wheat, he says. Rather, he recommends a few good Web sites – Yahoo, Oregon Health Sciences University's Clineweb, Healthnet from Canada – and e-mail. He also

likes the NLM and ACP Online on CompuServe and the listservs MMMatrix-L and HMatrix-L on the Internet. For accessing images, he prefers CD-ROMs because of the slow image access time over the wire.

Dr. Krueger spends seven to 10 hours a week on-line and researches specific patient conditions daily in the NLM, which he considers of absolute and immediate use to all physicians. He recommends that, as a first step to exploring the benefits of accessing medical information electronically, physicians open an account with the National Library of Medicine and get a copy of Grateful Med software. Second, physicians should investigate the capabilities of the major on-line services. And finally, physicians can use a browser to explore the World Wide Web where, he says, they will discover things, not necessarily extract them.

"Medicine is no longer about memorization," says Dr. Krueger. "I think we have come to a more mature understanding of the spread and use of knowledge. It shouldn't be considered intellectual failure to say I don't know, I need to go check my resources. The wise person is the one that knows where to find the information, not necessarily one who has memorized all the information. It is incumbent upon us if we are going to properly care for people in an increasingly complex medical world to present the information to ourselves and our colleagues in the most readily accessible format possible. We have to act as the human interface between the person with the illness and the knowledge needed to treat them."

Ram Ravindran, M.D.
Director of OB Anesthesia,
Wishard Memorial Hospital
Indianapolis

Dr. Ravindran admits he is an Internet nut. It's his hobby, what he does to relax, usually for two to three hours a day. The more you search, the more you find, he says, and warns that it's easy to get hooked.

He has been on the Internet for two years and uses it primarily to stay in touch with colleagues, to make new contacts and to correspond with anesthesiology journal editors via e-mail. He points out that e-mail is the most frequently used Internet application by physicians.

To illustrate this point, Dr. Ravindran says he recently presented a case of a patient with low hemoglobin to his anesthesiology discussion group. Within a few days, several members of the discussion group responded, explaining how they successfully administered anesthesia to patients with a similar condition.

For Dr. Ravindran, the biggest impact of the Internet will be to make research and other information available to physicians on-line months before they would receive the printed journals. As a result, new therapies can be implemented sooner and problems with existing procedures can be addressed immediately.

He acknowledges that the Internet can be confusing, but says it is becoming more and more organized, and clinical information is easier to find. Anesthesiology departments, including IU's, are establishing their own home pages on the Web, and more and more CME is being offered on the Internet.

"It's really a treasure house," says Dr. Ravindran. "If you don't get involved in the Internet, you are missing a lot. You can find information about a variety of clinical problems from all over the world. You can build contacts with other physicians, all from the comfort of your home. I'm convinced that in the future, we will have access to more useful information and we will spend less time looking for it than we do now."

How to get started

All you need to get on the Internet is a personal computer, a modem,

some software and a telephone line. The cost of establishing and maintaining basic Internet access is relatively modest. Twenty dollars can buy you as many as 200 hours on-line per month.

Yes, the whole Internet thing can be intimidating, what with the initiated chortling about things like getting "flamed" for "spamming" on a listserv. But don't let the jargon put you off. Most people surfing the Internet are still pretty new at it themselves and don't mind helping novices. Besides, there are lots of resources (see "For more information" on

page 15) to help you get started. For physicians, one of the best resources may be someone, perhaps even another physician, who's already taken the plunge.

"If a doctor wants to get started in computing," advises Dr. Judy, "find someone who's already relatively familiar and use them as your guide and local expert. Appeal to someone's intrinsic desire to be helpful or to show off or be an expert or power user, and then let them be helpful." □

Bob Carlson is a health care writer based in Indianapolis.

Indiana court enforces 'any willing provider'

Paul R. Black
Brian K. Peters
Indianapolis

Managed care. The variety of HMOs, PPOs, PSNs, IDNs and so on dominate the discussion of health care delivery in the '90s. Insurers, employers, provider groups and other interested parties are negotiating varying arrangements in hopes of putting together competitive and cost-effective networks. Providers are so aligning themselves because payers prefer to contract with networks that can provide a complete package of health services at competitive rates.

However, competition engenders provider exclusion. Network organizations use exclusion as a tool of network efficiency. Network managers assert that networks reduce costs and improve services by fostering competition between providers. They argue that network providers can reduce fees because limiting the panel of providers assures the panel access to a sufficient volume of patients to warrant the fee reduction. Further, many providers bargain for network participation to exclude their competitors from access to a particular payer.

Provider exclusion and 'any willing provider' laws

So, are there any limitations on the ability of networks to exclude a single provider or group of providers, or even another intermediary network of providers? The answer is a qualified yes. Policies limiting exclusion largely

are rooted in state and federal antitrust laws, and in state "any willing provider" laws. However, the antitrust laws have not yet become a lightning rod for debate although they certainly have that potential. At least currently, the formation and organization of managed care networks are being analyzed by courts and enforcement agencies under antitrust laws based on what is referred to as the "rule of reason." This essentially means that any "reasonable" basis for the way in which a network is organized (and its exclusion of certain providers) may prevent it from being attacked as in violation of antitrust laws.

Indeed, at this writing, the Medicare Preservation Act of 1995, as passed by the House, provides that the conduct of a provider service network (or of any member of the network) in negotiating, making or performing a contract, including the establishment of a fee schedule and the development of a panel of physicians, for the purpose of providing health services under the terms of a Medicare Plus PSO contract, will be judged under the rule of reason and will not be deemed illegal per se.

As a result, the focus with respect to government regulation of provider exclusion from networks may rest, at least for the short term, with state "any willing provider" laws and similar legislation. These laws forbidding exclusion are further evolving as the result of ongoing lobbying efforts of the various interested parties at state and national levels. Around the country, many vari-

ants of the "any willing provider" laws are being legislatively proposed by providers. These include due process laws, which would require managed care networks to grant a hearing to a provider excluded from participation, and essential community service laws that would identify providers deemed "essential" to the community and require their inclusion in the network. Other legislation advancing notions of patient protection, mandated point of service and freedom of choice are being discussed.

Most of these laws are written against networks sponsored by insurance companies as opposed to networks sponsored by other providers. For example, Indiana's law was drafted as a statute regulating the insurance industry, and so applies only to insurance companies authorized to issue policies that provide reimbursement for expenses of health care services. Not surprisingly, the insurance industry refers to such laws as anti-managed care and has indicated it intends to lobby heavily against them at both the state and local levels. The Health Insurance Association of America has identified "any willing provider" laws as one of its primary legislative concerns for 1996.

On the other hand, the provider community, including the American Medical Association, has strongly supported "any willing provider" legislation and will likely continue to do so because such laws still benefit most providers. However, as provider-sponsored networks subject themselves to capitation and take on risk, their

ability to distinguish themselves from insurer-sponsored networks for purposes of this and other laws may lessen. Undoubtedly, for this reason, at this writing, the Medicare Preservation Act of 1995 as passed by the House contains provisions that would exempt provider-sponsored organizations (PSOs) from "any willing provider" laws as well as from state insurance and HMO regulations that might prevent a PSO from operating as contemplated by Congress. Under this Medicare reform legislation, a PSO includes a group of affiliated providers who are sufficiently clinically and financially integrated as to be able to assume full risk and to provide a complete minimum Medicare benefit package.

Networks may have other means of exemption from

"any willing provider" laws. For example, a recent federal court decision from Texas declared on behalf of insurance-sponsored networks that the Federal Employment Retirement Income Security Act of 1974 (ERISA) preempted the application of a state "any willing provider" statute to the extent that the networks contracted with self-insured employers. Yet other interested groups, including last year's universal coverage proponents, are lobbying Congress to limit the effect of ERISA preemption on state laws so that states can regulate the health benefit plans of such self-insured employers.

All of this means that one of the more clearly defined battle lines over further development of managed care networks is the extent of a network's ability to exclude certain providers from participation. Accordingly, providers who are or who would be network participants should stay abreast of these legal developments, since their bargaining position ebbs and flows with them.

Recent Indiana development
In Indiana, one such significant new development involving Indiana's "any willing provider" law about which all Indiana

from participation in the networks with or without cause. After a billing dispute arose between the companies and the physician, Associated and Anthem exercised their rights under the agreements to terminate the physician without cause. In response, the physician asked to rejoin the networks effective as of the date of the attempted termination, pursuant to the Indiana Preferred Provider Organization Act, Indiana Code 27-8-11-1 through 27-8-11-5, (particularly, the "any willing provider" statute, Indiana Code 27-8-11-3).

Indiana's "any willing provider" statute provides that before entering into a preferred provider agreement, an insurer must establish terms and conditions of participation in the network, and these terms and conditions may not discriminate

Indiana's any willing provider statute provides that before entering into a preferred provider agreement, an insurer must establish terms and conditions of participation in the network, and these terms and conditions may not discriminate unreasonably against or among providers.

providers should be aware occurred this summer. An Indiana trial court issued an injunction enforcing Indiana's "any willing provider" statute and requiring the Associated Insurance Companies, Inc. (Associated) and Anthem Benefit Services, Inc. (Anthem) to readmit a physician who previously had been terminated from preferred provider networks operated by Associated and Anthem.

This case arose from network agreements entered into between a physician and Associated and Anthem that gave the companies the right to terminate the physician

unreasonably against or among providers. It further provides that any provider willing to meet the established terms and conditions must be allowed to enter into an agreement with the insurer. The statute covers hospitals, physicians, pharmacists, dentists, podiatrists, optometrists, osteopaths, chiropractors and health service providers in psychology.

The physician, whose practice depended significantly upon the referrals generated by the network agreements, represented that he was willing to meet the terms and conditions of the network contracts and formally asked to obtain

copies of the terms and conditions. Associated and Anthem replied that the terms and conditions of their network agreements were proprietary and could not be disclosed, except that one of the terms and conditions (previously undisclosed to the provider) was that "an application of a provider may be rejected (when) ... the provider has been terminated by the network(s) within the previous 36 months."

Before the effective date of the termination, the physician brought suit against Associated and Anthem, alleging a violation of the "any willing provider" statute and asking for an injunction requiring immediate reinstatement to the networks. The physician argued that a 36-month waiting period was illegal since the contract permitted termination without cause. Together, the two provisions effectively nullified the "any willing provider" statute because they allowed the insurers to enter into agreements with any provider, and then terminate the provider without cause, thereby excluding the provider from network participation for at least three years. Associated and Anthem countered that the 36-month waiting period and the "without cause" termination provisions applied to all other physicians participating or applying to participate in the networks and therefore should be upheld.

The court agreed with the physician and concluded that Associated and Anthem's refusal to readmit the physician was a

potential violation of the "any willing provider" statute. As a result, the court entered a preliminary injunction requiring Associated and Anthem to allow the physician to remain in its networks pending a final determination on the merits of the case.

Although they had the right to do so, Associated and Anthem did not appeal the preliminary injunction. What is not clear is whether they will seek to change the "any willing provider" statute, which was the basis for this decision, in the Indiana General Assembly.

This appears to be the first court decision anywhere in the United States enforcing "any willing provider" law against an insurer sponsored network. While some previous decisions in other states have held such laws effective, no other court has actually required an insurer to admit, or retain, a provider in its network.

The full impact of this decision remains to be seen, but for the time being it certainly gives providers in Indiana a strong argument that they cannot be excluded from managed care networks at the desire of the network. The combination of a network contract that gives the insurance company termination rights for no reason, together with terms and conditions of participation that prevent providers previously terminated from reapplying for any period of time, is contrary to Indiana's "any willing provider" law according to this court.

There are limitations to the decision and the "any willing

provider" law. Indeed, Anthem, which acts essentially as an administrator of benefit plans, argued that it was not an insurance company and so was not subject to Indiana's "any willing provider" law. While the court has not yet ruled on this argument, this limitation probably means, for instance, that provider sponsored networks are not subject to Indiana's law so long as they are not organized and regulated as insurance companies providing reimbursement for services.

As health care delivery systems continue to develop and evolve at an ever-increasing rate, all that can be said for certain about "any willing provider" laws and their variants is that they will be the focus of debate over government regulation of the relationship between managed care networks and providers. Many providers view them as an essential source of protection from unilateral decision-making by the networks, and insurers and insurer-sponsored networks view them as inimical to their ability to establish cost-effective delivery systems. As a result of the "any willing provider" law and the willingness of an Indiana trial court to enforce it against insurance companies, providers appear to have the upper hand in Indiana, at least for now. □

The authors are attorneys with the law firm of McHale, Cook & Welch in Indianapolis, practicing in the area of health care law and litigation.



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Seven ways to avoid frivolous malpractice claims

John Muller
Indianapolis

As an attorney who represents plaintiffs in medical malpractice claims, I often hear valid complaints from my physician friends about "frivolous malpractice claims." Frivolous claims take up valuable time in non-productive meetings with attorneys, depositions, etc., and they complicate applications for hospital privileges and professional liability insurance. Even a favorable outcome does not compensate for the emotional turmoil and inconvenience that goes with litigation.

In a sense, American medicine is a victim of its own good press. Much frivolous litigation is attributable to what I call the "miracle or malpractice" syndrome. Patients read about astounding medical advances where limbs are reattached, organs are transplanted, heart vessels bypassed and cancers cured. The public ends up believing that doctors really can perform miracles, and, of course, patients want miracles. Anyone with a serious medical problem wants to believe that there is a safe and reliable treatment for the problem. That is only human nature. When a patient has a result that is less than a miracle, the patient sometimes concludes that it must have been malpractice.

Here are seven points to help physicians avoid frivolous malpractice claims:

1. Maintain good personal relationships with your patients.

There is no question that physi-

cians who have good personal relationships with their patients have fewer overall claims and certainly fewer frivolous claims. Patients who like their physicians are less likely to sue them.

The changes in medicine though are making personal relationships with patients more difficult. With increased specialization and compartmentalization of medicine – not to mention the economic pressures – physicians see more patients, each for a shorter period of time. The physician has less time to develop the personal relationship that used to exist between doctor and patient. However, a few extra minutes with a patient, and a note in the chart about the patient's personal interests, can do wonders for a relationship and may, in the long run, be worth the time invested.

2. Be aware of the difficulty in communicating with patients.

Patients often have a very poor understanding of their medical condition and their treatment, even when the medical issues have been thoroughly explained by the physician.

Physician-patient conversations about medical procedures and risks are an especially difficult communication setting. Patients are usually nervous when talking to their doctor. They know the doctor is busy, and they suspect that he or she does not have time to deal with their questions. If their medical condition is serious, the patients are likely to be anxious, distracted and reluctant to ask questions. Often, they simply do not know what questions to ask. Furthermore, the patient is often

hearing from the physician complicated, technical information that may involve complex risk analyses.

Given the circumstances, it is not surprising that many patients who have major procedures understand very little of their medical situation and the risks associated with them. If there is a bad outcome, this lack of understanding can lead to unwarranted malpractice claims. When talking to patients, be conscious of the difficulty that the patient may have in understanding what you are trying to communicate.

3. Give the patient information about the patient's condition and treatment.

If you routinely treat a particular condition or do a procedure, consider giving the patient written information about that condition or procedure. Many of the drug companies and appliance manufacturers have excellent pamphlets, clearly written in layman's terms, that give a good overview of particular conditions. In addition, there are commercial video tapes on various medical problems.

One company is developing an interactive CD-ROM to be used for informed consent. Using a personal computer, the ROM explains the medical procedure and has the patient answer questions that establish the patient's understanding of the procedure and the risks of the procedure. If these materials are not available on your procedures, consider writing your own short summary.

Patients want medical information and especially appreciate

material that they can take home and review. They can show it to their spouse or other family members and discuss it at length. The more the patient understands about his medical condition and treatment, the less the chances of an unwarranted claim.

4. Place the risk of a procedure where it belongs, with the patient. An important corollary to providing information about a patient's medical treatment is to make certain that the patient understands the risks associated with the treatment. It is the patient who has the medical condition, and the risks associated with that condition should be with the patient, not the doctor. It is important that the patient understands and accepts those risks.

This may run counter to your natural instinct. When confronted with a nervous and apprehensive patient, the inclination is to reassure the patient. "Don't worry. I do this procedure all the time, and there are rarely any complications. Everything is going to be fine."

This will be reassuring, but it feeds the patient's belief that there are no risks with the procedure, and the patient may end up with unrealistic expectations. If the results of the procedure are favorable, this is no problem. However, if there is an unfavorable outcome, the patient is likely to conclude that the unfavorable outcome was a result of substandard treatment.

It is important, but often difficult, to make patients understand and accept the risks inherent in their condition and treatment.

5. Respond promptly to requests

for information and medical records.

It is important to respond promptly and fully to requests for medical records. There is a surprising level of suspicion, if not outright paranoia, when a patient is considering malpractice litigation. Whether it is warranted or not, the public is generally cynical about the integrity of medical records in the context of malpractice litigation. Patients may view any hesitation or equivocation about turning over medical records as confirmation that an underlying problem is being concealed.

The same considerations apply to changes in the records. Patients and juries view any attempt to alter records as evidence that there was a problem in the original treatment. In reviewing a record, if you see that a correction needs to be made, put one line through the old notation, being careful not to obliterate it. Write the correction so that it can be clearly identified as a correction. Then, initial and date the correction. By doing this, you eliminate any suspicion that an attempt was made to alter the records.

Withholding records and alterations in records are red flags that feed a patient's suspicions and can lead to unnecessary claims.

6. Chart thoroughly and legibly.

When a plaintiff's attorney reviews a medical malpractice claim, the attorney has only the medical records and the patient's story to evaluate. The patient often knows little or nothing about the situation. If the records are incomplete or illegible, the plaintiff's attorney will have to evaluate the claim with incomplete information. The

attorney has no way of supplementing the information in the chart. The attorney cannot, for instance, call a physician and ask what line three of the progress note says.

The only way that the attorney can get that information is to put the claim on file, take the doctor's deposition and ask the doctor to read that particular line. The illegible note may be information that you want the plaintiff's attorney to have before he files a claim.

Consider charting not only the diagnosis and treatment but any diagnoses or treatments that were considered and rejected. Judgment calls on medical issues are almost always decided in favor of the physician, even when in hindsight, they were not correct. So, a notation that a particular diagnosis or a particular treatment was considered and rejected, with the medical reason, will eliminate a claim that a diagnosis or treatment was not considered.

Incomplete or illegible charting may leave questions unanswered that can only be answered in litigation. It is better to write it clearly in the chart than explain it in a deposition.

7. Consider giving the plaintiff's attorney the information that establishes the claim is frivolous.

If you do get named in a frivolous claim, consider sharing with the plaintiff's attorney the information necessary to convince the plaintiff's attorney that the claim is without merit. Most frivolous claims are filed because the plaintiff's attorney does not have accurate or complete information.

Keep in mind that the attorney had only the chart to review when

he or she evaluated the claim. The attorney may or may not have been able to find a competent medical consultant to give reliable information on the medical issues. Sometimes, a simple affidavit providing the attorney with additional information can resolve the issue quickly.

You and the plaintiff's attorney have a common interest in seeing that frivolous litigation is resolved as quickly and efficiently as possible. The plaintiff's attorney is working on a contingent fee basis. The attorney is not going to be compensated for a frivolous claim. When a non-meritorious claim has been filed, the plaintiff's attorney's interest is in documenting that it is not a legitimate claim and closing the file with as little investment of time as possible. That is in your interest as well. Consider helping the attorney do that by giving the information that he or she needs.

When a lawsuit is filed, the

lines of communication become formalized and difficult. There is a tendency, especially among older defense attorneys, not to give the opponent any information about the case. However, there are some things that you want your opponent to know about a case. To make the opponent work for that information is counterproductive.

There are two important caveats to this advice which dictate that this should be done only in consultation with an experienced malpractice defense attorney.

First, what you consider to be a frivolous claim may not be viewed by others as a frivolous claim. The defense attorney needs to evaluate the claim to see if in his or her opinion it is frivolous. The defense attorney also needs to evaluate the information that you intend to give the plaintiff's attorney to decide whether it is likely to convince the plaintiff's attorney that the claim should be dismissed.

Secondly, not all plaintiffs' attorneys will act responsibly on the information and dismiss the claim. Defense attorneys generally know those plaintiffs' attorneys who have the experience and inclination to evaluate information and act appropriately on it. That decision needs to be made by an experienced malpractice defense attorney.

In general, the more information given to a plaintiff's attorney about a frivolous claim, the more likely it is to be resolved quickly and efficiently.

Conclusion

The one thread that runs through all of these pointers is communication. Frivolous medical malpractice claims are often a result of miscommunication. □

The author is an attorney with Miller Muller Mendelson & Kennedy in Indianapolis.

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Mary N. Walsh, M.D., F.A.C.C.
Daniel M. Gelfman, M.D., F.A.C.C.
Richard I. Fogel, M.D., F.A.C.C.
Daniel L. Lips, M.D., F.A.C.C.
Mukund D. Patel, M.D.
Geilan Ismail, M.D.
Scott M. Sharp, M.D., F.A.C.C.
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Utilizing generation skipping techniques

**Joel M. Blau, CFP
AMA Investment Advisers**

The generation skipping transfer tax (GSST) is a complicated and sometimes misunderstood area of estate tax planning.

Many physicians pass large amounts of wealth to their children via gifts and other estate planning techniques but would also like to pass extra wealth to their grandchildren or great grandchildren. In many circumstances, their children may already be wealthy or financially secure as a result of their own individual accomplishments. These children may not want to have additional wealth passed on to them, which would cause increased taxation in their own estates. An alternative is to pass wealth to the grandchildren without incurring estate taxation in their children's estate. This strategy falls under the impact of the GSST. The GSST imposes a flat tax of 55%, which is in addition to any gift or estate tax on every generation skipping transfer. This applies to transfers to a beneficiary two or more generations below the donor, such as grandchildren and great grandchildren.

Every taxpayer is allowed to

transfer \$1 million free of the GSST. The exemption is most effectively used to transfer property today, and thus, remove all future appreciation from the GSST by using a "direct skip." A direct skip is an outright gift or bequest to third generation family members (skip persons) or a gift in trust, if all trust beneficiaries are skip persons. A lifetime direct skip receives the most favorable tax treatment for the donee since it is tax "exclusive," meaning the donor is responsible for paying any GSST. In addition, a lifetime direct skip transfers all future appreciation to the skip person and removes it from further generation skipping taxation. By transferring rapidly appreciating property, fully sheltered by allocating the GSST exemption, the impact of the tax can be greatly reduced or even eliminated and the value of the gift is enhanced.

In addition to the amount sheltered by the GSST exemption, other transfers are available that would not be subject to the tax. The other major exclusions available are gifts that qualify for the \$10,000 annual exclusion, direct payment of tuition to educational institutions and direct payment of medical expenses. For instance, a grandparent can pay for a

grandchild's college education free of gift tax and GSST by making payments directly to the school rather than gifting the funds to the grandchild.

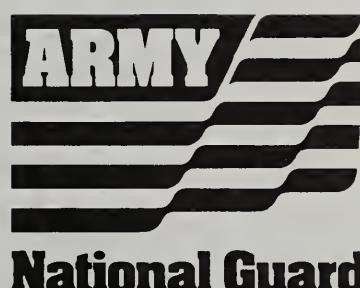
Of course, the most effective planning strategy for generation skipping is to create a transfer that will be entirely exempt from GSST. This is accomplished by limiting transfers to an amount that can be sheltered by the GSST exemption. The leverage gained by allocating the GSST exemption to lifetime direct skips can be substantially increased by establishing an irrevocable trust funded with life insurance. At little or no tax cost, large sums of wealth can be transferred to grandchildren and great grandchildren through the leverage created by the life insurance death benefit owned by the trust.

When carefully structured, a leveraged generation skipping trust can be a very powerful tool for passing wealth to future generations. Your estate tax attorney can help you determine the effectiveness of this strategy for your own personal situation. □

The author welcomes readers' questions. He can be reached at 1-800-262-3863.

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1995 ISMA convention photo highlights



William E. Cooper, M.D., Columbus, ISMA immediate past president, right, congratulates Jerome Melchior, M.D., Vincennes, upon his installation as ISMA president for 1995-96.



Jerome Melchior, M.D., and his wife, Martha, are shown at Presidents' Night events. Dr. Melchior, a Vincennes urologist, was installed as president during the convention.



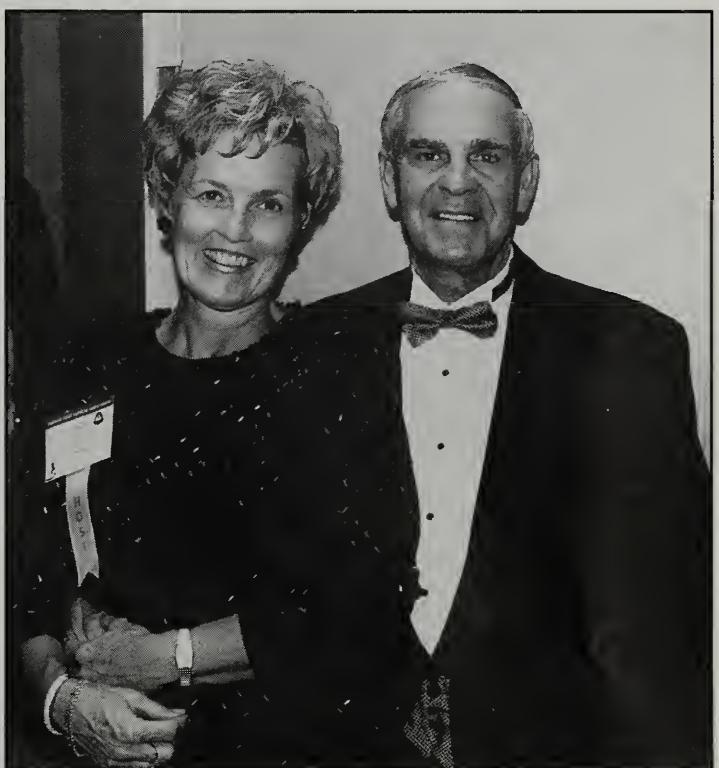
Valerie Gates, Valparaiso, the ISMA Alliance president, and her husband, Greg Gates, M.D., were honored at Presidents' Night.



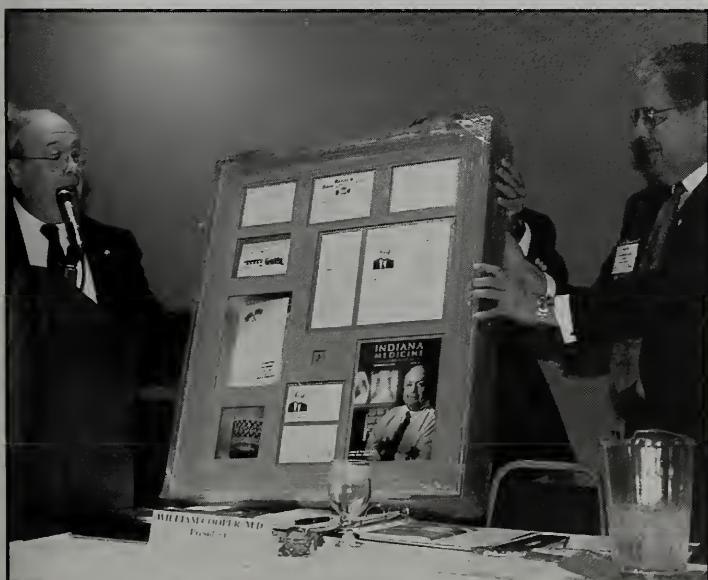
Members of Reference Committee 3, which heard legislative issues, are, from left, Steven Isenberg, M.D., Indianapolis; William Mohr, M.D., Kokomo; Promila Paul, M.D., Munster; Dung Nguyen, M.D., Indianapolis; and William Pond, M.D., Fort Wayne.



Fred Barnes, a nationally known political commentator, speaks at the annual IMPAC luncheon. He is executive director of *The Standard*, a weekly conservative magazine that he founded and began publishing in September. He was formerly senior editor at *The New Republic*.



Alfred Cox, M.D., ISMA president-elect, and his wife, Ellaine, were honored at an afterglow hosted by the St. Joseph County Medical Society and the 13th District Medical Society. Dr. Cox is a family physician from South Bend.



John Knote, M.D., a Lafayette radiologist, at microphone, is surprised with a collage of mementoes from his campaign and subsequent election as AMA vice speaker. The presentation was made during the first session of the House of Delegates. Jerome Melchior, M.D., a Vincennes urologist, is at right.



William E. Cooper, M.D., and his wife, Nancy, greet Freg Haggerty, M.D., a Greencastle family physician, and his guest, Nancy Beachkofsky, at Presidents' Night.



The Association of Indiana Directors of Medical Education presented plaques to, from left, Lindley H. Wagner, M.D., Lafayette, in appreciation of his service as president, and Donald T. Olson, M.D., South Bend; Edward F. Steinmetz, M.D., Indianapolis; and Larry Lawson, M.D., Muncie, in recognition of their work as the founding members of AIDME.



Awaiting the opening of the first session of the House of Delegates are brothers Donald McCallum, M.D., left, a Franklin urologist, and James McCallum, M.D., an Indianapolis ophthalmologist.



Sen. Robert Garton, R-Columbus, president pro tempore of the Indiana Senate, speaks at the Key Contact seminar that was part of the semi-annual meeting of the Indiana Roentgen Society.



Members of the panel discussion on "The Changing Environment of Health Care Delivery" were, seated from left, Scott Weingarten, M.D., director of health services research at Cedars Sinai Medical Center in Los Angeles; Ben Park, M.D., Indianapolis, founder and president of the American Health Network; Gary Erskine, executive director of the Arnett Clinic in Lafayette; Douglas D. French, president and CEO of St. Vincent Hospital in Indianapolis; and Steven F. Isenberg, M.D., an Indianapolis otolaryngologist and founder and CEO of Project Solo, a national information database formed for independent physicians.



Robert Stevenson, M.D., a New Castle internist, stops to talk with Barbara Hollingsworth, center, and Kimberly Harper at the Indiana Medical Access and Communication System (IMACS) booth in the exhibit hall.



The Bloomington contingent at Presidents' Night included, from left, Robert Wrenn, M.D., an obstetrician/gynecologist, and his wife, Ann, the AMA Alliance secretary; and Judy Lawrence with her husband, Larry Lawrence, M.D., a psychiatrist.



The dance floor was a lively place at Presidents' Night as guests kicked up their heels to the music of Off Center.



Susan Amos, M.D., and her father, Paul Siebenmorgen, M.D., an ISMA past president, served as delegates. Both are family physicians from Terre Haute.

1995 ISMA convention coverage

Call to order, miscellaneous business

The Indiana State Medical Association House of Delegates convened its 146th annual convention at 9 a.m., EST, Friday, Oct. 20, 1995, at the Radisson Hotel in Indianapolis. The final session of the House of Delegates convened at 9 a.m., EST, Sunday, Oct. 22, 1995.

Presiding at both sessions was Peter Winters, M.D., Indianapolis, speaker, assisted by John Thomas, M.D., Fort Wayne, vice speaker. J. Vannoy Faris, M.D., Indianapolis, served as parliamentarian. Allen Rumble, pastor of the Zionsville United Methodist Church, presented the invocation.

Approval of minutes

The proceedings of the 145th annual meeting of the House of Delegates, Indiana State Medical Association, conducted Oct. 21-23, 1994, at the Westin Hotel, Indianapolis, and published in the January/February 1995 issue of *Indiana Medicine*, were approved.

Addresses, reports

The addresses of the president, president-elect and president of the ISMA Alliance, all referred to Reference Committee 1, were filed with commendation.

All reports (printed in the September/October 1995 issue of *Indiana Medicine*) were filed, with the exception of the treasurer's report, which is referred for audit.

Election of officers

Jerome Melchior, M.D., Vincennes, president-elect, succeeded to the office of the president. Alfred Cox, M.D., South Bend, was elected

president-elect. Other elections included:

Treasurer – Timothy Brown, M.D., Crawfordsville

Assistant treasurer – Frank Sturdevant, M.D., Valparaiso

Speaker of the house – Peter Winters, M.D., Indianapolis

Vice speaker of the house – Stephen Tharp, M.D., Frankfort

Chairman, board of trustees – Bernard Emkes, M.D., Indianapolis

At large members, executive committee – Barney Maynard, M.D., Evansville, and Tom Brubaker, M.D., Griffith

Election of delegates, alternate delegates to the AMA

The following were elected to two-year terms as delegates and alternates to the American Medical Association (terms expire Dec. 31, 1997):

Delegates:

C. Dyke Egnatz, M.D., Schererville

John MacDougall, M.D., Indianapolis

Michael Mellinger, M.D., LaGrange

George Rawls, M.D., Indianapolis, was elected to a one-year term as a delegate. This additional delegate seat was granted by the AMA due to the election of John Knote, M.D., of Indiana, a delegate, as AMA vice speaker. This term expires Dec. 31, 1996.

Alternates:

William Cooper, M.D., Columbus

Paula Hall, M.D., Mooresville

Barney Maynard, M.D., Evansville

Holdover AMA delegates and

alternate delegates (terms expire Dec. 31, 1996) are:

Delegates:

William Beeson, M.D., Indianapolis

Shirley Khalouf, M.D., Marion

John Knote, M.D., Lafayette

Alternates:

Alfred Cox, M.D., South Bend

Max Hoffmann, M.D., Covington

Jerome Melchior, M.D., Vincennes

Trustees, 1995-1996

District 1 – Barney Maynard, M.D., Evansville

District 2 – Fred Ridge Jr., M.D., Linton

District 3 – John Seward, M.D., Bedford

District 4 – Arthur Jay, M.D., Lawrenceburg

District 5 – Fred Haggerty, M.D., Greencastle

District 6 – Ray Haas, M.D., Greenfield

District 7 – Paula Hall, M.D., Mooresville

District 7 – John Records, M.D., Franklin

District 7 – Bernard Emkes, M.D., Indianapolis

District 8 – John Osborne, M.D., Muncie

District 9 – Gerald Wehr, M.D., Lafayette

District 10 – Thomas Brubaker, M.D., Griffith

District 11 – Regino Urgena, M.D., Marion

District 12 – Joseph Manthei, M.D., Liberty Center

District 13 – Richard Houck, M.D., Michigan City

Resident Medical Society – Ruchir Sehra, M.D., Indianapolis

Medical Student Society –
Madeline Eversoll,
Indianapolis

Alternate trustees, 1995-1996:

District 1 – John Berry, M.D.,
Evansville
District 2 – Ralph Stewart, M.D.,
Vincennes
District 3 – Kevin Burke, M.D.,
Jeffersonville
District 4 – Lawrence Bailey, M.D.,
Aurora
District 5 – Fred Drake, M.D., Terre
Haute

District 6 – Howard Deitsch, M.D.,
Richmond
District 7 – Frank Johnson, M.D.,
Indianapolis
District 7 – Craig Moorman, M.D.,
Franklin
District 7 – Girdhar Ahuja, M.D.,
Indianapolis
District 8 – Susan Pyle, M.D.,
Union City
District 9 – Michael Stewart, M.D.,
Crawfordsville
District 10 – John Swarner Jr.,
M.D., Valparaiso
District 11 – William Mohr, M.D.,

Kokomo
District 12 – Scott Wagner, M.D.,
Fort Wayne
District 13 – David Hornback,
M.D., South Bend
Resident Medical Society – Dung
Nguyen, M.D., Indianapolis
Medical Student Society – Erin
Baker, Indianapolis

1996 meeting

The 1996 ISMA annual meeting
will be Oct. 18-20 at the Westin
Hotel, Indianapolis. □

In memoriam

The ISMA pays tribute to its
members who have died since the
1994 session:

Robert Acher, M.D., Greensburg
Virgil Angel, M.D., Highland
John Armstead, M.D., Indianapolis
Charles Austin, M.D., Anderson
Norman Beaver, M.D., West Lafayette
Robert Beck, M.D., Newburgh
Arthur Blazey, M.D., Santa Claus
Robert Bolin, M.D., Lafayette
Richard Buckingham, M.D.,
Bloomington
Donald Buehner, M.D., Evansville
James Burk, M.D., Decatur
Lee Cattell Jr., M.D., Louisville, Ky.
Rodney Caudill, M.D., Yorktown
Paul Chivington Jr., M.D., Carmel
Frank Coble, M.D., Richmond
James Conklin, M.D., Terre Haute
John Crist, M.D., Evansville
Gail Eldridge, M.D., Indianapolis

Lee Foster, M.D., Carmel
Russell Havens, M.D., Fort Wayne
Ramon Henderson, M.D., Muncie
Deward Houser, M.D., South Bend
William Howard, M.D., Nashville
Arnold Johnson, M.D., Gary
Forrest Keeling, M.D., Columbus
David Koransky, M.D., Highland
Arthur Larson, M.D., Elkhart
Iris Legaspi, M.D., Munster
Ralph Leser, M.D., Indianapolis
Andreas Lutz, M.D., Highland
Carl Martz, M.D., Punta Gorda, Fla.
Howard Marvel, M.D., West Lafayette
Chester McClure, M.D., Madison
Ralph McQuiston, M.D., Indianapolis
Dennis Megenhardt, M.D.,
Indianapolis
Donald Miller, M.D., Cedar Lake
Antoin Montecillo, M.D., Clinton
William Mount, M.D., Battle Ground
Donal O'Sullivan, M.D., Evansville
Douglas Offutt, M.D., Newburgh
Margaret Owen, M.D., Bloomington

Renu Pandya, M.D., Lafayette
Harold Petijean, M.D., Haubstadt
Frank Peyton, M.D., West Lafayette
Richard Pryor, M.D., Indianapolis
Thomas Redlin, M.D., Elkhart
John Robb, M.D., Indianapolis
Bernard Rosenak, M.D., Indianapolis
Byron Rust, M.D., Sarasota, Fla.
Eugene Schmidt, M.D., Fort Wayne
Arthur Scudder, M.D., Brownsburg
William Sharp, M.D., Alexandria
Carl Stallman, M.D., Kendallville
Byron Steger, M.D., San Antonio,
Texas
Ronald Swaaby, M.D., Switz City
Everett Taylor, M.D., Upland
Ian Templeton, M.D.,
St. Petersburg, Fla.
Harry Tunnell III, M.D., Fort Wayne
Thomas Tyrrell, M.D., Munster
Edmund VanBuskirk, M.D., Lafayette
James Warriner, M.D., Indianapolis
Julia Wixted, M.D., Phoenix, Ariz.
Elmer Zweig, M.D., Fort Wayne □

Jerome Melchior, M.D., installed as ISMA president

Jerome Melchior, M.D., a Vincennes urologist, was installed as president of the ISMA Oct. 22 during its 146th annual meeting.

During his speech to the House of Delegates, Dr. Melchior said physicians cannot rest on past legislative achievements and that the core of ISMA's legislative strategy is physician cohesiveness. He encouraged ISMA members to bring new physicians into organized medicine.

"Commitment is infectious. The physician with a purpose and a plan to be the patient's advocate is treated with admiration. These are the physicians that we must push into involvement and then on

to commitment," he said.

During his one-year term as president, Dr. Melchior will chair the ISMA executive committee. A 1967 graduate of the University of Kansas School of Medicine, Dr. Melchior is certified by the American Board of Urology and is a fellow of the American College of Surgeons and a member of the American Urology Association. He is a staff member at Good Samaritan Hospital in Vincennes, where he has been president of the medical staff, chairman of the hospital utilization committee and chairman of surgery service.

He has served as ISMA trustee and alternate trustee of the Second District. □



Dr. Melchior

Alfred C. Cox, M.D., named ISMA president-elect



Dr. Cox

Alfred C. Cox, M.D., a family practice physician from South Bend, was named president-elect of the ISMA during its annual convention.

A 1962 graduate of the Indiana University School of Medicine, Dr. Cox has been in private practice for 32 years and is a past president

of the Memorial Hospital medical staff in South Bend. He served as associate medical director of Key Health Plan from 1985 to 1992.

He is a member of the Indiana Academy of Family Physicians and the American Academy of Family Physicians.

Dr. Cox has served on the ISMA board of trustees since 1989. □

Address of the president William E. Cooper, M.D.

I want to thank you for the opportunity to serve as your president this year. I do appreciate all of your support. But there is one person in the room today I want to thank, not only for my being in the medical association, but for my life in medicine. That's Dr. Joe Black.

As many of you probably know, Joe practices in Seymour, where I grew up. As many of you may not know, Joe's the primary reason I'm here today and have enjoyed a life in medicine. Joe was our family physician. Like many young kids growing up, I didn't have a clue of what I wanted to do with my life. My first job was as a student typist in the school office. I guess today that's what they call a work study program.

One day I looked up from my typing and there was Dr. Joe. He said, "Billy, have you decided where you are going to go to college?" I hadn't even decided if I was going to college.

But he commanded so much authority and respect I thought "Maybe I better go to college." And when I got there, I looked around and found that medicine was really what intrigued me.

As many of you know, Dr. Joe was president of the Indiana State Medical Association and served during one of medicine's pivotal years - 1965, the year Medicare came into being. Through the leadership of colleagues like Dr. Joe, the state association helped doctors adjust to that upheaval ... that changing climate.

It was a climate that threatened to destroy the very heart of

medicine . . . the physician-patient relationship.

Suddenly things were being done to us . . . not by us, and certainly not for us. Sound familiar? Sound a lot like today?

I have been struck more than once by the parallels between Dr. Joe's year and my year. Again things are being done to us, not by us, and certainly not for us. And again, I've tried to draw on Dr. Joe for my inspiration . . . as I worked with staff, with leadership and with membership. Just as doctors - being the bright, capable people they are - coped back then, we're going to cope today.

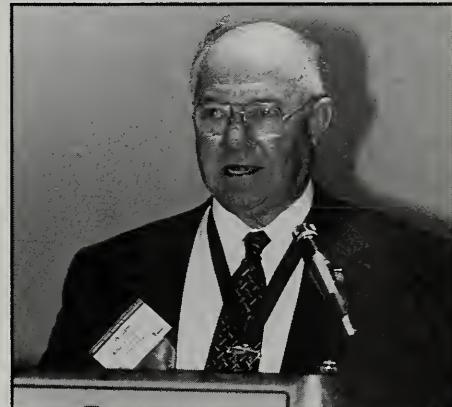
That's been my mission this year as your president. In the legislative arena alone, ISMA was instrumental in protecting the practice of medicine and the patients you serve. Because of the efforts of the ISMA, Indiana doctors in managed care plans can now use our best medical judgment on behalf of our patients - without fear of reprisals from the plan.

Because of the efforts of the ISMA, insurance companies cannot "cherry pick." For years they've cherry picked patients and when they tried to pick doctors, we stopped them.

Because of the efforts of the ISMA, we've stopped knee jerk regulation and knee jerk legislation - with the establishment of the Medicaid Clinical Advisory Committee.

The Good Sam law is now also a good sense law. It now covers not only accidents, but emergencies.

Because of the efforts of the



Dr. Cooper

ISMA, the General Assembly enacted HB 1623. The office of attorney general must notify physicians before the medical licensing board can suspend their license.

And now retired physicians who want to volunteer their time in clinics can do so without having to assume the burden of paying for liability insurance. Physicians who want to serve . . . and patients who need their services . . . we brought them together.

And I know it didn't happen on my watch, but I would be remiss if I didn't remind you that this year is the 20th anniversary of INCAP, the Indiana Compensation Act for Patients.

While other states have struggled with liability reform, Indiana physicians have enjoyed the freedom of looking at our patients as our friends, not our potential foes.

And it's not just in the legislative arena that we've focused our efforts. We've been active in public law and in public health. Our partners in medicine, the Alliance,

have not only heightened our awareness of the problem of domestic violence, but have also helped us work toward providing programs and solutions. Whether sponsoring women and family shelters in our home towns . . . or working with the Indiana Coalition Against Domestic Violence . . . or talking with legislators on Medicine Day . . . or raising money to assist IU Medical students . . . The alliance is there.

And in tending to the health of the public, we've not neglected the health of our association. Many state presidents I've talked with this year tell me budgets are tight; they're struggling. I'm proud to report to you we are on a solid financial footing. Membership in the association is up. Seven thousand nine hundred strong. More than eight out of 10 doctors in our state support our association. I know we're not happy with 85% — we Hoosiers want 100%. But that's a record many states are looking at with envy.

And we've made our presence felt in another arena, too. We have the opportunity of seeking the presidency of the AMA. John Knoté! Now, John's a great guy. A good friend of mine and a hard

worker. But he'd be the first to admit that he didn't get elected by himself.

Like me and other leaders in Indiana medicine, he knows we doctors don't make it happen alone. We've had outstanding leadership and outstanding staff helping us this year. From John MacDougall who was Dr. Knoté's campaign manager to Rick King who heads up the staff. To Susan Grant, Mike Abrams, Adele Lash, Jennifer Floyd and Ron Dyer, right on through to Debbie Kelly, who answers our 800 number. We have a staff that I know all our members appreciate and are proud of. Please join me in showing our appreciation.

You know, I've been in six or seven states on behalf of ISMA. I have to tell you it was always a pleasure to come home to our association and staff. There are some other people that I owe a debt of gratitude. I want them to stand as I recognize them, but I want you to hold your applause until the end. First, the Bartholomew-Brown County Medical Society, led by President Helen Kinsey; the Brown-Bartholomew County Medical Alliance, led by President Lisa

Brueggeman and the Fourth District Medical trustee, Art Jay.

And, of course, my wife, Nancy.

Please join me in thanking them.

I began this morning on a very personal note. The story of how my mentor, Joe Black, helped me to a life in medicine. He's been my teacher, my mentor, my friend. I want to close today with a challenge to each of you here. I told you how Joe rescued me from a career as a typist nearly 40 years ago. If he'd rescued me today, it wouldn't be from typing. I'd be flipping burgers at McDonald's, stocking shelves at K Mart or sacking groceries at Marsh.

My challenge to you is to be the Joe Black of your generation . . . your community.

Find that burger flipper who belongs in family practice . . . that stocker at K Mart who belongs in clinical pathology . . . that grocery sacker who belongs in general surgery and guide them as Joe guided me . . . into one of the most wonderful . . . the most challenging . . . the most fulfilling professions that I know.

Thank you. □

Address of the president-elect, Jerome Melchior, M.D.

Mr. Speaker, officers, trustees, delegates, alliance members and guests:

Over the years, I understand my predecessors, since 1849, labored over the creation of an ISMA presidential speech. After completing my task, I promise not to take 146 years or 146 minutes and hopefully less than 14.6 minutes to deliver my address today.

Before I begin, however, I must paraphrase Dr. Bob McAfee, immediate past president of the AMA, and tell you that, as your humble servant, never in my wildest dreams did I imagine I would be president of the Indiana State Medical Association, but then again my wildest dreams seldom have anything to do with the ISMA!

As Dr. Cooper reminded us, physicians in 1965 faced the largest social medical transition ever in the United States, Medicare and Medicaid. Today, ISMA members are once again confronted with a massive realignment of health care delivery.

We cannot rest on our past legislative achievements. The challenges to ISMA membership are numerous. What is the single thread that runs through all of the challenges facing us? What is the core of our strategy? Physician cohesiveness and collegiality! We need to join together to produce reasoned solutions that represent the dual goals of patient satisfaction and physician clinical autonomy.

Here's how the ISMA is working to create a more cohesive

membership.

The ISMA has embarked on an aggressive member education program. Your association has taken the lead role in assisting physicians in understanding the opportunities and challenges in the new medical environment. Our landmark Physician Hospital Organization study, through a joint venture with the AMA, Michigan State Medical Society, and the Illinois State Medical Society, has assisted PHO development all over the state.

As a result of the initial study and feedback from physicians, the ISMA has just published a follow-up Physician Organization study. Additionally, the ISMA is currently involved in a feasibility study with the Illinois and Ohio state medical associations on the creation of a Management Services Organization. The MSO is the logical outgrowth of our Second Opinion Program that provides a listing of experts for physicians to use in the creation of new practice entities.

At the request of this House, the ISMA has completed an up-to-date comparison of managed care contracts. You'll find that report on your tables today.

I believe ISMA also must become involved in the further education of its members regarding physician data and profiling. To compete in the 21st century, all physicians need to have access to clinical data . . . data that are peer reviewed locally and compared on a regional, state and national basis. Physician practice behavior can be normalized if we, not the insurance industry, have input into



Dr. Melchior

what is the standard of care. A proposal is before this House to accomplish data collection. It deserves your careful and reasoned consideration.

The ISMA is concerned about our ability to communicate with our members. I believe it is very difficult to build cohesion without effective communication. Therefore, we are conducting a top to bottom review of our efforts. ISMA is committing additional resources to use the tools of the 21st century . . . everything from blast faxes to the Internet . . . on your behalf. I am committed to maintaining the ISMA's excellent record of achievements as an organization focused upon physician representation and advocacy.

As you know, Congress is in the process of reforming Medicare and Medicaid on an unprecedented scale. I am hopeful you have read the reports about the AMA's success in transforming the

Medicare program. In short, it appears the House and Senate proposals address concerns of Indiana physicians. The federation of medicine – the AMA, ISMA, county societies, specialty societies and the alliance have successfully lobbied to increase the Medicare single conversion factor from \$34.60 to \$35.42. Other important sweeteners include:

1. Reform of Stark I/II
2. Exempting doctors' offices from CLIA
3. Limited anti-trust relief
4. A medical savings account option
5. Liability reform including limits of \$250,000 on non-economic damages; and
6. Reform of the fraud and abuse statute.

As for Medicaid, one can assume it's a "done deal" that Medicaid will come to Indiana in a block grant form. According to some experts, the state can expect at least an 18-20% reduction in federal dollars and probably more. This reduction must not be made at the expense of those most in need within Medicaid – women and children.

Additionally, we are fearful that the cuts could result in reduced access to physicians. In anticipation of block grants, the ISMA executive committee is recommending to the board, in its budget, the addition of a reimbursement expert and policy analyst.

When we talk about advocacy, we cannot forget our partners in the alliance. To the alliance leaders and members here today, we are

indebted for your efforts. We particularly appreciate your participation in Medicine Day at the Indiana General Assembly.

I would be remiss if I did not mention INCAP. As you know, INCAP, the Indiana Compensation Act for Patients, is the national standard for tort reform in the U.S. Unfortunately, the act is not without its critics, particularly the plaintiff trial lawyers and some members of the fourth estate. While the nation is moving in the direction we took 20 years ago, the judiciary in Indiana is slowly beginning its assault on INCAP. Several recent decisions are disturbing the foundation of the act.

The ISMA has begun a study of the act and the Patients Compensation Fund to obtain a clear understanding on which direction to proceed in strengthening INCAP. This year we published an updated white paper of INCAP. The board of trustees will closely monitor the situation, and I am sure will act in the best interest of the patients and physicians.

I've talked about cohesiveness. There's one more component . . . you! I challenge all physicians to show your commitment! Next meeting, bring a new member, one that you have helped move along the spectrum from physician to member, to involved, to committed.

It would be well if this newly committed physician was:

1. 10 years younger.
2. A different gender, race or country of origin.

Commitment is infectious. The

physician with a purpose and a plan to be the patient's advocate is treated with admiration. These are the physicians that we must push into involvement and then on to commitment.

I wish to also comment on an observation made many years ago at this meeting. Your leadership are always on an elevated platform, and one could get the mistaken idea that the power actually resides here on this platform. This is definitely incorrect. We all need to remember that you, the House of Delegates, make the policy. We simply implement your decision. You decree. We agree.

As president, it will be my job to see that this occurs. If throughout the year you feel it does not, call me. I will promise to listen to your concerns, to explain our position and hopefully come to a harmonious solution.

Lastly, I'm going to quit before I end up like the medieval knight who returned home to his castle in very poor shape. He was bruised and battered. His armor was dented in a dozen places and he was practically falling off his horse. When the king came out to greet him, he asked the knight what on earth had happened to him. The knight said, "My lord, I merely went out to talk to your enemies in the West." The king said, "I don't have any enemies in the West." The knight said, "Well, now you do." I'm going to sit down before I make any more enemies. □

Address of the ISMA Alliance president, Valerie Gates

As ISMA Alliance president, I am here to bring you an update on what your Alliance has promoted this past year.

The alliance is an organization aligned with similar goals and objectives as the Indiana State Medical Association. Our membership consists primarily of physicians' spouses though we do have some physician members. The alliance has 24 organized counties. We also have a members-at-large category for those who live in unorganized areas. One of our state goals is to keep our members informed on the current issues affecting the practice of medicine.

We have worked to bring legislative awareness to each organized county by hosting legislative internships, forums and workshops. This past spring the alliance instituted a mini-legislative forum at the Capitol. A group of alliance members spent the day with a legislator from their area observing how the state legislature operates. Hopefully, this program can be expanded to include all counties instead of just the three we used as a pilot program. The alliance also actively participated in the Medicine Day ISMA function at the Capitol. We had the AMA-Alliance legislative chair

address our full board meeting held in the afternoon of Medicine Day on the hows and whys of developing a good relationship with your legislators.

We are aware, as spouses of physicians, that your stresses very easily become our family stresses. In dealing with the intrusion of business and government into the way in which you practice medicine, these stresses sometimes seem insurmountable. Coping skills and warning signs of stress are topics which the alliance has covered and will continue to cover in our programs and workshops. We have, in fact, a two hour workshop planned for this afternoon with Dr. Clifford Kuhn, who will give us some insight on the light and dark sides of life.

The Alliance has had a productive year and encourages all of your spouses who are not members to join their county, state and national alliance as federated members. The AMA Alliance holds leadership training workshops in Chicago twice each year for county alliance president-elects. This is a tremendous opportunity for gaining additional information on current health care topics. The number of participants each state can send is determined by the number of AMA-A mem-



Valerie Gates

bers in that state.

Please come to the alliance hospitality suite and view the displays which show the various activities each county has done on the behalf of medicine to help promote a positive public image in each local community. I would like to introduce you to those county alliance presidents who are here today. To help recognize them, they each are wearing a silk corsage. Please join me in acknowledging the dedicated work they do on your behalf.

Thank you for your time and attention. □

Roland Chamblee, M.D., receives community service award

Roland W. Chamblee Sr., M.D., received the 1995 Physician Community Service Award from the ISMA and Wyeth-Ayerst Pharmaceuticals.

He was honored for his work at the South Bend Chapin Street Health Center, which serves the needy who might otherwise not receive medical care. Dr. Chamblee

has served on the clinic's advisory board since 1986 and became the medical director in 1991. The center was one of the "Points of Light" initiative recognized by President George Bush in 1991.

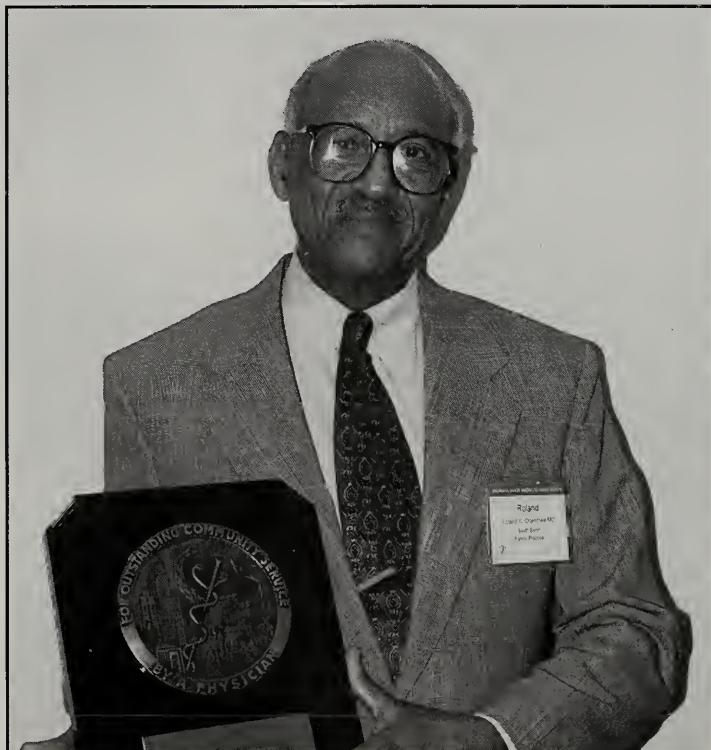
He explains the clinic's philosophy: "People come here because they hurt. Physically, emotionally and even spiritually, they're down. It is immaterial to us

whether a patient is white or black, young or old, suffering from nasal congestion or a confirmed case of AIDS. We treat them one at a time with dignity due everyone."

Dr. Chamblee has been a member of the family practice and medical staffs at Memorial Hospital and St. Joseph's Medical Center in South Bend since 1954.

He has been honored for his work by several organizations. He twice received the Urban League Meritorious Service Award and in 1965 was presented the Action Award as State Knight of the Year by the Knights of Columbus. He has also received the Brotherhood Award of the National Conference of Christians and Jews and the Helping Hand Award from Hospice of St. Joseph County. Dr. Chamblee was appointed a member of the Equestrian Order of the Knights of St. Gregory the Great by Pope John Paul VI. The award was established in 1830 in recognition of personal character, reputation and notable accomplishments. He was named Citizen of the Year, Meritorious, by the African Methodist Episcopal Church.

From 1972 to 1973 he was the physician-in-charge of the Naggalama Hospital Nakifuma in Uganda, East Africa. □



Dr. Chamblee

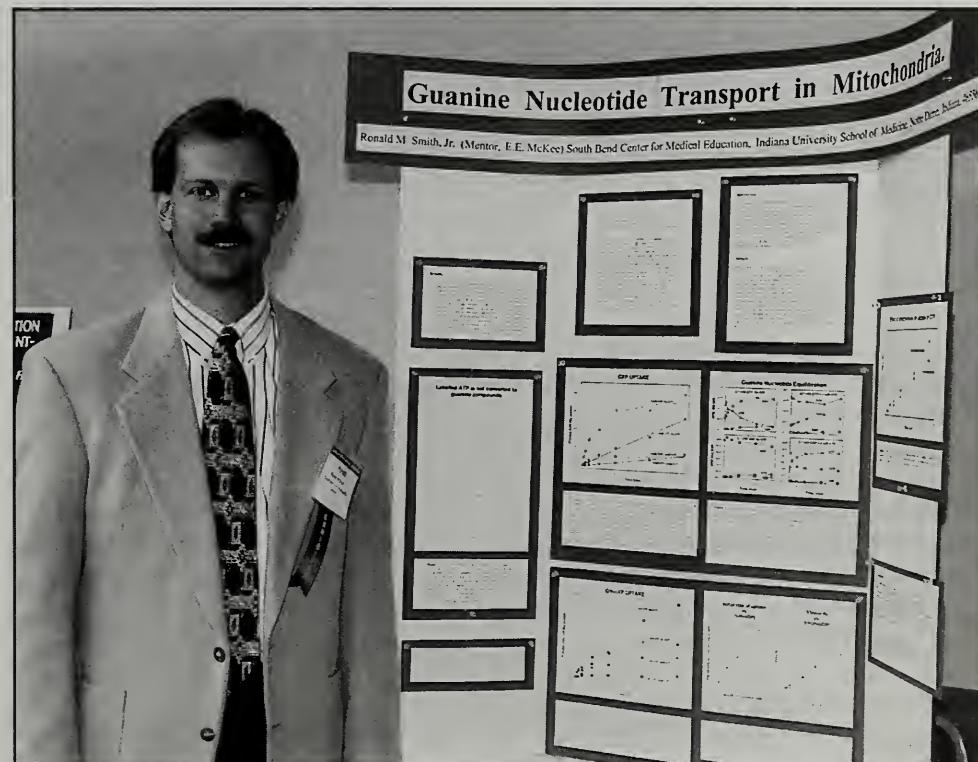
Scientific exhibit winners

First place

"Guanine nucleotide transport in mitochondria"

Exhibitors: Ronald M. Smith Jr., South Bend Center for Medical Education, Dept. of Biochemistry and Molecular Biology, Indiana University School of Medicine; and Edward E. McKee, Ph.D., Dept. of Biological Science, Notre Dame, South Bend, Ind.

The transport of adenine nucleotides in mitochondria has been well characterized; however, much less is known concerning mitochondrial transport of guanine nucleotides. Although past research has failed to find a transport mechanism, the requirement for GTP in RNA translation and DNA transcription as well as the fact that GDP is involved in the TCA cycle indicates that guanine nucleotides must be transported into the mitochondrial matrix. Previous work with isolated intact rat heart mitochondria has indicated that neither guanine nor guanosine are transported into the matrix. In the present work, it has been shown that when radiolabelled GTP is added to an incubation medium there is net transport into the matrix. Because of the rapid interconversion between the phospho forms of the nucleotide, it is not clear which form is actually transported, although kinetic studies seem to indicate that it is most likely GDP. Unlike the ATP transport mechanism, this uptake is not inhibited by atractyloside. Studies have indicated a rate of transport around 88 pmole/mg/min. □



Ron Smith stands with his award-winning exhibit.

Second place

"APC resistance as measured by a textarin time assay: Comparison to the APTT-based method"

Exhibitor: Lee E. Hoagland and D.A. Triplett, Muncie Center for Medical Education, Indiana University School of Medicine, Research Department, Ball Memorial Hospital, Muncie, Ind.

Protein C is a major regulatory protein critical to physiologic anticoagulation. Once activated, it selectively degrades the activated forms of factors V and VIII, thereby inhibiting blood coagulation. Using an activated partial thromboplastin time (APTT) assay,

Dahlback et al recently reported that some individuals, especially those with previous thrombotic episodes or a family history of venous thrombosis, show a poor anticoagulant response to activated protein C (APC). In an attempt to develop a more sensitive and specific test system, we decided to evaluate an assay based on Textarin®. Textarin®, a protein fraction of *Pseudonaja textilis* venom (Australian Eastern brown snake), activates prothrombin in the presence of phospholipid (PL), factor V and calcium ions. Based on its factor V dependence, we have developed a Textarin Time assay to test for APC resistance. We have evaluated this test system

in normal subjects and in the following patient populations: stable oral anticoagulated and known APC resistance. Our data conclude that the Textarin Time assay is an effective screening system that can be used to detect APC resistance due to factor V abnormalities. □

Third place

"A comparison of criteria for pretransplantation crossmatching: Flow cytometry versus complement-dependent cytotoxicity"
Exhibitors: Richard Y. Ha, Benita K. Book, Richard A. Sidner, Ronald S. Filo, Division of Organ Transplant, Department of Surgery, Indiana University School of Medicine, Indianapolis, Ind.

The complement-dependent cytotoxic crossmatch (CDCXM) measures humoral activity against a donor's lymphocytes. Levels of cytotoxicity (CTX) are assigned as 1, 2, 4, 6 or 8 corresponding to the percentage of cell death: 0-10, 11-20, 21-50, 51-80, 81-100, respectively. A positive CDCXM (≥ 2) contraindicates transplantation and is a predictor of humoral rejection. The flow cytometry

crossmatch (FCXM) measures binding of alloantibodies rather than CTX and is reportedly more sensitive than CDCXM. Cellular immunofluorescence is expressed as Mean Channel Shift (MCS), with higher MCS indicating greater levels of bound alloantibody. Furthermore, the FCXM can identify particular class(es) of reacting antibody (IgG, IgM) and the type of target cells (B, T, MØ). In this study, we compared the two methods to discern the relationship between FCXM and CDCXM values and to establish ranges of MCS within each cytotoxicity level in CDCXM. CDCXM's were performed using sera obtained from potential renal graft recipients and unseparated cell preparations from donor lymph nodes; parallel FCXM's were performed using prepara-

tions of donor spleen lymphocytes. We analyzed the following interactions: IgG vs. T-cells (GT); IgG vs. B-cells (GB); IgM vs. T-cells (MT); IgM vs. B-cells (MB). For each CTX level, a group mean MCS was calculated. Statistical analyses used factorial ANOVA with Fisher's PLSD post-hoc interactions test.

IgG reactivity (GT and GB) was directly related to CTX levels. Group means in the GT series were significantly different except when comparing CTX levels 1 and 2, and CTX levels 2 and 4. For the GB series, group means were significantly different except between levels 1 and 2, 2 and 4, and 6 and 8. For the MT series, only group mean for CTX level 8 differed significantly. Group means were not significantly different for the MB series. □

Mean Channel Shifts (mean \pm s.e.)

CTX (n)	GT (p<.0001)	GB (p<.0001)	MT (p \geq .010)	MB (p \geq .76)
1 (23)	2.0 \pm 2.0	6.4 \pm 3.6	2.3 \pm 1.5	16.6 \pm 3.5
2 (18)	11.4 \pm 4.9	23.8 \pm 8.3	2.3 \pm 1.8	13.9 \pm 3.7
4 (21)	22.4 \pm 5.8	38.8 \pm 8.0	5.4 \pm 2.8	15.7 \pm 4.5
6 (18)	41.4 \pm 8.2	71.3 \pm 8.3	2.3 \pm 1.7	11.9 \pm 2.1
8 (16)	71.4 \pm 8.9	81.7 \pm 9.8	16.1 \pm 6.3	19.6 \pm 5.9

Editor's note: These annual reports were not submitted in time to be included in the September/October 1995 issue of Indiana Medicine.

FIFTH DISTRICT

Fred Haggerty, M.D., trustee

The Fifth District annual meeting was held at the Walden Inn in Greencastle May 25 with a good turn-out. Next year's annual meeting is scheduled in Clay County.

Quarterly meetings have continued, actively providing opportunity to share concerns, to network and to solve common problems.

Again Janna Kosinski, the ISMA field representative, has helped the district greatly. Thank you.

10TH DISTRICT

Thomas Brubaker, M.D., trustee

Activities in the 10th District were not unusual this year. We maintained the same schedule of meetings and continued the excellent level of communication between the two counties in the district.

Overall our membership has increased, with both counties developing and pursuing efforts to obtain new members and retain past members. Each county has attempted to address the special

issues facing our area — the growth of managed care entities. We made some preliminary efforts to develop a joint managed care program. Activities in this area are ongoing in both counties.

We also held several joint membership programs on Medicaid reform and managed care programs. We have pursued an annual legislative meeting with state legislators since some legislators overlap portions of each county. Some of our members also met with Congressmen.

The two counties are represented by a liaison who attends each county's board and membership meetings. We are fortunate to have active members from both areas who participate in the ISMA and share information. We also work closely on resolutions and legislation.

During the last 10th District meeting, Frank Hieber, M.D., was elected president; Floyd Manley, M.D., treasurer; and Thomas Brubaker, M.D., trustee. A resolution establishing a 10th District legislative committee was adopted. The legislative committee would consider any legislative or regulatory matter of interest to our members, develop a position, meet with legislators, present seminars and participate in IMPAC and the ISMA Legislative Commission.

Next year, the 10th District will undertake more joint efforts. As we learn that issues are not just community wide, we will continue

to use the strength in unity of effort.

13TH DISTRICT

Alfred Cox, M.D., trustee

The 13th District's annual meeting was hosted by St. Joseph County at Morris Park Country Club, South Bend, March 22. District president, Donald Smith, M.D., presided over the evening's activities, which included the election of a new district trustee, Richard Houck, M.D., Michigan City, and a new alternate trustee, David Hornback, M.D., South Bend. Entertainment was provided by Don Hall, a local magician. The attendance was not as good as we hoped; however, I feel this represents physicians' apathy throughout organized medicine. We need to make our membership more aware of the legislative medical issues and the role we can have in shaping our destiny.

The annual meeting was moved to the spring so that the issues of the state legislature could be addressed. Our organization was very successful in dealing with medical concerns in the recent legislative session.

As I move on to a state leadership position, I know that Drs. Houck and Hornback will provide outstanding leadership for the members of the 13th District on the board of trustees. □

■resolutions

Resolution 95-1

Introduced by:

Statewide Medical Education

Dearborn-Ohio County
Medical Society

Referred to:

Reference Committee 1

Action:

Not adopted

Whereas, the Indiana University of Medicine statewide system for medical education, initiated the system in 1970; and

Whereas, the eight outstanding campuses are located in the north and west portions of the state; and

Whereas, the southeast one-third of the state has no such centers; and

Whereas, such benefits as physician recruitment, physician retention and continuing medical education, may benefit from medical education centers; therefore be it

RESOLVED, The ISMA, in conjunction with the statewide system of Medical Education, support an updated feasibility study to develop a ninth Medical Education Center in the southeast one-third of the state, so that the statewide system of Medical Education will be truly statewide.

RESOLUTION 95-2

ISMA Commission on Sports Medicine

Introduced by:

The ISMA Executive Committee

Referred to:

Reference Committee 1

Action:

Not adopted

Whereas, Section 7.010205 states that the Commission on Sports Medicine

encompasses the field of sports medicine; and

Whereas, Section 7.10007 states,

"The Commission on Sports Medicine shall provide liaison between the Indiana State Medical Association and various athletic organizations. The Commission will research issues and make recommendations in a variety of areas relating to sports medicine in our state, in an attempt to improve the medical care of Indiana athletes and related personnel"; and

Whereas, these policy areas are addressed by the Commission on Legislation and other ad hoc committees established from time to time to serve specific purposes; and

Whereas, it is important that the ISMA, as an organization led by busy volunteers, strive to make the best and most efficient use of our members' time who

Statewide Medical Education

Dearborn-Ohio County
Medical Society

Reference Committee 1

Not adopted

generously agree to serve on commissions and committees; therefore be it

RESOLVED, That Section 7.010205 and Section 7.10007 be deleted from the Bylaws, and in lieu thereof, specific ad hoc committees be created for special purposes as the need arises.

RESOLUTION 95-3

Commission on Physician Assistance

The Commission on Physician Assistance

Referred to:

Reference Committee 1

Action:

Adopted

Whereas, Section 7.1006 of the ISMA Bylaws states as follows,

"Commission on Physician Assistance: The Commission on Physician Assistance shall develop a program to recognize, treat and rehabilitate physicians who are in need of assistance because of neuropsychiatric illness, physical infirmities, or alcohol and other substance dependence. The Commission will encourage informal and formal referral of all physicians in need of assistance to component county medical society screening committees.," and

Whereas, the Commission on Physician Assistance meets all the requirements of Indiana's "Peer Review Act," as set forth at I.C. 34-4-12.6-1 et al; and

Whereas, the Indiana Peer Review Act provides various confidentiality, privilege and immunity protections; and

Whereas, it could be advantageous to the Commission to have stated in the ISMA Bylaws that the Commission on Physician Assistance is a "peer review committee" as defined by the Indiana Peer Review Act, and claims all the privileges and immunities contained therein; therefore be it

RESOLVED, That the ISMA Constitution and Bylaws, Section 7.1006, be amended by adding the following language,

"The ISMA Commission on Physician Assistance is organized pursuant to Indiana's Peer Review Act as set forth at I.C. 34-4-12.6-1 et al, and claims all the rights, privileges, confidentiality and immunities provided therein."

RESOLUTION 95-4 **HIV Testing of Pregnant Women**

Introduced by: John W. Luce, M.D., Michigan City
Referred to: Reference Committee 2
Action: Adopted

Whereas, many pregnant women are unaware of their HIV status; and

Whereas, there is scientific evidence that transmission of the HIV virus takes place between an infected mother and her unborn child; and

Whereas, there is mounting evidence to suggest that maternal treatment with zidovudine can significantly reduce the vertical transmission rate from 26% to 8%; therefore be it

RESOLVED, That the ISMA seek legislation to require HIV testing of all pregnant women.

RESOLUTION 95-5 **Third-Party Reimbursement for Pre-certification**

Introduced by: Third District Medical Society
Referred to: Reference Committee 4
Action: Adopted as amended

Whereas, most of the insurance companies, Medicare and Medicaid, now require precertification for diagnostic tests, consultations, procedures and surgeries; and

Whereas, this is entirely for the benefit of the third parties and does nothing to improve the quality of care, and sometimes actually impairs the quality of care; and

Whereas, the physicians have been forced to bear the brunt of the extra cost for these precertifications, including the hiring of extra personnel, or tying up the time of present personnel, and it results in hours of wasted time; and

Whereas, many times the third parties needlessly extend these calls with unnecessary questions and cause excessive waste of time and frustration by placing the caller on hold and requiring that we talk to more than one person; therefore be it

RESOLVED, That the ISMA support the concept of reasonable reimbursement of management services such as: precertification for diagnostic tests, consultation, procedures and surgeries; and be it further

RESOLVED, That the ISMA communicate this resolution to the AMA for their support.

RESOLUTION 95-6

Introduced by: Barney R. Maynard, M.D., Chair, ISMA Commission on Legislation
Referred to: Reference Committee 1
Action: Adopted

Whereas, the need for physicians to speak with a unified voice has never been greater; and

Whereas, the need to speak with a unified voice on legislative matters is absolutely critical to the protection and advocacy for patients and our profession; and

Whereas, all elements of medicine need to work together on common legislative matters to more effectively advocate for patients and physicians; and

Whereas, the ISMA Commission on Legislation is open to all physician members and desires input from all physicians and specialties; therefore be it

RESOLVED, That every member of the ISMA be welcomed at the meetings of the Commission on Legislation, and that their input be actively sought and recognized.

RESOLUTION 95-7 **ISMA-Sponsored Self-Funded HMO**

Introduced by: Rami Saydjari, M.D.
Crawfordsville
Referred to: Reference Committee 1
Action: Resolution 95-29 adopted in lieu of Resolution 95-7

Whereas, physicians and patients face ever increasing interference with the doctor/patient relationship by managed care entities; and

Whereas, recent court decisions have confirmed that some managed care entities make fiduciary decisions which are not always in the best interest of the patient and may adversely affect medical outcomes; and

Whereas, successful self-funding HMOs sponsored by a state medical society have been created in the past (e.g., Physician Health Care Plan of New Jersey and M.D. Health Plan of Connecticut); and

Whereas, eliminating insurance companies as the middleman in health care is likely to protect the doctor/patient relationship and restore the doctor's role as patient advocate while controlling cost within the context of a physician-owned and physician-run HMO; therefore be it

■ resolutions

RESOLVED, That the ISMA undertake a feasibility study to determine whether an ISMA-sponsored HMO would be efficacious in Indiana and report back the findings of such a study to ISMA members.

RESOLUTION 95-8 Insurance Coverage for Deliveries

Introduced by: John W. Luce, M.D., Michigan City
Referred to: Reference Committee 4
Action: Referred to Board of Trustees

Whereas, many third party payers are reducing the length of stay for routine deliveries to one night stays; and

Whereas, the American College of Obstetricians and Gynecologists in its 1992 "Guidelines for Prenatal Care," recommends that in otherwise uncomplicated deliveries the postpartum stay range from 48 hours for vaginal delivery to 96 hours for cesarean section; and

Whereas, the decision to discharge a woman after deliveries lies with the woman and her physician; and

Whereas, other state legislatures, including Maryland and New Jersey, have required third-party payers to follow the American College of Obstetricians and Gynecologists Guidelines; therefore be it

RESOLVED, That the ISMA support legislation that would require third-party payers to pay for at least 48 hours of hospital care after a routine delivery and 96 hours after a cesarean section.

RESOLUTION 95-9 Physician filing and signing of certificate of birth and death

Introduced by: The Indiana Association of Public Health Physicians
Referred to: Joseph Black, M.D., health officer, Jackson County
Action: Joe Dukes, M.D., former health officer, Sullivan County
Reference Committee 2
Adopted

Whereas, the current birth registration law IC 16-37-2-1 defines "a person in attendance at birth" as a licensed physician, or midwife, or other legally authorized person to attend a patient in childbirth; and

Whereas, the current death registration law IC 16-37-3-5 specifies the physician last in attendance . . . shall certify the cause of death or stillbirth; and

Whereas, the State Department of Health has

elected to designate other than a physician/midwife to sign a birth certificate; and

Whereas, there are conflicting laws that specify that lay people can certify the cause (medical) of death; therefore be it

RESOLVED, That the ISMA seek and support legislation that would:

1) Amend birth and death registration laws to specify physician responsibility for signing and filing a birth and death certificate:

a) Designate that only a physician holding an unlimited license to practice medicine, a licensed midwife or the local health officer are legally authorized to file a birth certificate.

b) Designate a physician holding an unlimited license to practice medicine as the only person legally authorized to certify a medical cause of death and to file a death certificate.

RESOLUTION 95-10 ISMA Medicare

Transformation Position
Introduced by: Barney R. Maynard, M.D., alternate delegate to AMA
Referred to: Reference Committee 3
Action: Adopted as amended

Whereas, the Medicare program has, for thirty years, served to finance the health care needs of the elderly and disabled; and

Whereas, the Medicare program has attained the original goals of providing quality health care and access to all of its beneficiaries; and

Whereas, the Medicare program was based on an unsustainable financial foundation; and

Whereas, the Medicare program now faces bankruptcy and chaos unless radical measures are taken; and

Whereas, the American Medical Association, at its recent annual meeting, adopted a bold and comprehensive plan to completely transform the Medicare system; and

Whereas, this plan has been presented to the Congress of the United States for consideration and adoption; therefore be it

RESOLVED, That the ISMA adopt as policy on Medicare, the proposals of the AMA's 1995 Transforming Medicare; and be it further

RESOLVED, That the ISMA through its membership, leadership and Commission on Legislation, aggressively lobby for passage of the AMA's 1995

Transforming Medicare with the Indiana Congressional Delegation.

RESOLUTION 95-11 **Testing for human immunodeficiency virus (HIV)**
Introduced by: Fort Wayne Medical Society
Referred to: Reference Committee 2
Action: Adopted

Whereas, *The New England Journal of Medicine* reported in August of 1992 that:

- 1) 1,000,000 American citizens are infected with the HIV virus and many are not aware of it;
- 2) 110,000 or 11% of those who carry the virus unknowingly could be identified in one year of hospital testing;
- 3) 200,000 HIV-infected patients are treated annually in the nation's 5,558 hospitals;
- 4) 134,000 HIV-infected patients treated in the nation's 5,558 hospitals will be treated for symptoms unrelated to this virus;

Whereas, early detection and treatment will benefit those who are infected and guard against their infecting others; and

Whereas, the highest incidence of HIV infection occurs between ages 15 and 54; and

Whereas, physicians and health care entities are required to go to great lengths to ensure the protection of others, but are prevented by that same law (except under court order or emergency) from carrying out the necessary steps of good, prudent medical care and disease prevention due to informed consent laws and laws of confidentiality that prevent a physician from testing or informing emergency, nursing, surgical or other medical staff of a patient's HIV status; therefore be it

RESOLVED, That the ISMA petition the 1995 session of the Indiana General Assembly to pass legislation requiring hospitals to routinely offer voluntary HIV testing of all patients between the ages of 15 and 54 who are seen in Indiana hospitals.

RESOLUTION 95-12 **Consolidation of "Subcommission on Accreditation"**
Introduced by: Glenn J. Bingle, M.D., Chairman, Commission on Medical Education
Referred to: Reference Committee 1
Action: Adopted

Whereas, Section 7.1005 of the ISMA Bylaws states, "... The Commission on Medical Education with the assistance of the Subcommission on Accreditation shall serve as the ISMA state's accrediting body to accredit institutions and organizations for the presentation of intrastate continuing medical education programs"; and

Whereas, the Commission on Medical Education recommends the elimination of a separate Subcommission on Accreditation, thereby reducing redundancy and streamlining the ISMA accreditation process; and

Whereas, combining the two entities into one, named the Commission on Medical Education, would also provide maximum efficiency and continuity within the entities; therefore be it

RESOLVED, That Section 7.1005 be amended to read as follows:

"The Commission on Medical Education shall maintain liaison with, and be of assistance to, medical schools and the Medical Licensing Board. It shall keep in contact with and endeavor to assist in improving and maintaining high quality undergraduate, graduate and continuing medical education and public school health education within the state. The Commission on Medical Education shall serve as the ISMA's state accrediting body to accredit institutions and organizations for the presentation of intrastate continuing medical education programs."

RESOLUTION 95-13 **Tobacco control task force**
Introduced by: Stephen J. Jay, M.D., Indianapolis
Referred to: Reference Committee 2
Action: Adopted as amended

Whereas, science has proven that tobacco use causes numerous health hazards; and

Whereas, physicians should educate their patients and the public on the risks associated with tobacco usage and the health benefits of quitting tobacco; and

■ resolutions

Whereas, physicians need to improve their effectiveness in preventing children from starting tobacco usage and in helping individuals and their families to quit; therefore be it

RESOLVED, That the ISMA create a tobacco control task force and the duties of the task force shall include, but not be limited to, the following:

1. Promote public policy that will especially prevent youth access to tobacco; and
2. Support smoke free indoor air legislation and regulation at local, state and national levels; and
3. Enhance physician education and awareness, especially training of medical students and residents in tobacco control; and
4. Provide training for practicing physicians to be able to teach smoke cessation skills to others; and
5. Publicize the importance of tobacco control through articles for *Indiana Medicine* and *ISMA Reports*; and
6. Collaborate with other organizations such as the Indiana Department of Health, Indiana University School of Medicine and Project ASSIST (America Stop Smoking Intervention Study).
7. Contribute to the ISMA policy on tobacco control by sponsoring or supporting resolutions regarding tobacco control.

RESOLUTION 95-14

Introduced by: **Support for Project Solo**
Steven Isenberg, M.D.,
Indianapolis
Referred to: Reference Committee 4
Action: Adopted as amended

Whereas, physicians desire to provide quality care for their patients at reasonable cost; and

Whereas, physicians desire to remain advocates for their patients without conflict of interest; and

Whereas, Project Solo is a non-profit, non-partisan, grassroots organization of independent physicians united for quality, autonomy, patient advocacy and cost containment; therefore be it

RESOLVED, That the ISMA endorse Project Solo.

RESOLUTION 95-15

Introduced by: **Medicare/Medicaid coalition meetings**
Jasper/Newton County Medical Society
Kenneth J. Ahler, M.D.
Referred to: Reference Committee 1
Action: Resolution 95-16 was adopted as amended in lieu of Resolution 95-15 and 95-20

Whereas, a number of years ago, the ISMA was able to develop a meeting format between the carriers and providers to deal with reimbursement issues, especially for Medicare and Medicaid; and

Whereas, these meetings were especially designed to provide dialogue between the carriers and providers in an open format to resolve issues of conflict and reimbursement; and

Whereas, representation from various organizations, including aging senior citizens, congressional offices, specialty societies, as well as individual office practices, were all invited and welcomed; and

Whereas, members from consulting firms representing physician clients of societies have attended these meetings from their inception; and

Whereas, issues concerning reimbursement coding, policy changes, computer problems and payment delays continue to arise as both Medicare and Medicaid re-evaluate their reimbursement policies; and

Whereas, the ISMA reports that the cost of sponsoring these meetings has escalated significantly; and

Whereas, the physical location has become inadequate due to the number of attendees; and

Whereas, a charge of attendance has been levied to certain attendees of these meetings which they consider sufficient to perhaps limit their attendance; therefore be it

RESOLVED, That the Medicare/Medicaid Coalition meetings be continued in their original format; and be it further

RESOLVED, That the Medicare/Medicaid Coalition meetings be open to any representatives having concerns with carrier (payer) provider issues and/or reimbursement issues; and be it further

RESOLVED, That the Medicare/Medicaid Coalition meetings be moved to a facility large enough to accommodate the attendance; and be it further

RESOLVED, That the ISMA research means of financially supporting this facility without charging attendees.

RESOLUTION 95-16 Medicare/Medicaid coalition meeting

Introduced by: C.G. Clarkson, M.D., Richmond

Referred to: Reference Committee 1

Action: Adopted as amended in lieu of Resolutions 95-15 and 95-20

Whereas, Indiana Medicare and Medicaid oversight coalition meetings were developed in a roundtable type format to provide dialogue between providers, patients and carriers to deal with problems of HCFA, the carriers, the providers and the patients; and

Whereas, the ISMA sponsored these meetings in that original format until recently; and

Whereas, the ISMA Executive Committee and Board decided to make changes considered exorbitant to certain attendees of these meetings; and

Whereas, this has caused discourse and threatened to disturb the original intent of the meeting format; and

Whereas, the ISMA cites cost and facility size as the reason for the fees; therefore be it

RESOLVED, That the Medicare/Medicaid Coalition meeting be continued in a format to provide dialogue between all participants; and be it further

RESOLVED, That the ISMA research means to financially support and move the meetings to a facility where attendance is not limited and charges, if made, are reasonable.

RESOLUTION 95-17 Freedom of choice for dermatological services

Introduced by: Indiana Dermatological Society

Cleve Francoeur, M.D.

Referred to: Reference Committee 3

Action: Adopted as amended with substitute resolve

Whereas, the American Medical Association, the ISMA and the Indiana Dermatological Society all support the right of patients to access the physician of their choice; and

Whereas, unlike other specialties, on average, 90% of patients currently access dermatologists directly without a referral; and

Whereas, dermatological disorders, unlike vague internal medical problems, are readily evident to patients, thus allowing appropriate self-referral with-

out the need for gatekeeper direction; and

Whereas, unlike other specialties, essentially all patients currently under the care of a dermatologist will, against their will, lose continuity of care with their dermatologist and be forced to see providers unfamiliar with their diagnosis and special needs; and

Whereas, in the specialty of dermatology, the arguments of managed care corporations for gatekeeper services in the areas of cost effectiveness, patient satisfaction and quality of care are not applicable; and

Whereas, many managed care plans utilizing gatekeepers place more emphasis on profit than on the quality of care, and thus prevent patients from obtaining expert level dermatological care for their skin, hair and nail disorders; and

Whereas, by supporting and passing HB 1257 in the 1993 Indiana General Assembly, the ISMA, State Legislature and Governor have previously affirmed their support for policy allowing direct access to dermatologists or primary care providers for dermatological services; therefore be it

RESOLVED, That the ISMA support legislation to ensure that patients have the right to choose their physician.

RESOLUTION 95-18 Minimize capitation use in health care insurance reform

Introduced by: Fort Wayne Medical Society

Referred to: Reference Committee 4

Action: Adopted as amended

Whereas, in the climate of health care reform, the merging of the delivery and financing of health care has evolved; and

Whereas, the traditional fee for service system has and will be changing to a capitated form of payment; and

Whereas, there are many references in managed care literature that capitation may create ethical dilemmas for physicians in administering good quality, competent health care to patients; and

Whereas, the physicians of the ISMA are dedicated towards working in their patients' best interest without serious economic conflict; therefore be it

RESOLVED, That the ISMA work with the Indiana legislature to implement health care insurance reform for Indiana citizens that will minimize the use of capitation, thus ensuring benefit for Indiana patients; and be it further

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RESOLVED, That ISMA educate the citizens of Indiana about capitation and how providers are incentivized under capitation, as appropriate.

RESOLUTION 95-19 Class IV Health Professions Bureau Regulations
Introduced by: Dennis W. Miller, M.D., Indianapolis
Referred to: Reference Committee 3
Action: Adopted as amended

Whereas, the Health Professions Bureau restricts the prescribing of Class IV appetite suppressants; and

Whereas, such restrictions allow for substantially less care than is allowed under the DEA regulation; and

Whereas, these HPB regulations compromise effective treatment in some patients; therefore be it

RESOLVED, That the ISMA encourage the Medical Licensing Board of Indiana to change their rule on prescribing Class IV appetite suppressants to allow scientifically justified treatment options.

RESOLUTION 95-20 ISMA Medicare/Medicaid meeting
Introduced by: Louis Cantor, M.D., Indianapolis
Referred to: Reference Committee I
Action: Resolution 95-16 was adopted as amended in lieu of Resolution 95-15 and 95-20

Whereas, Indiana physicians continue to have problems with Medicare and Medicaid; and

Whereas, the Medicare/Medicaid coalition meetings are a forum to exchange information with the representatives of Medicare and Medicaid on the problems physicians are experiencing; and

Whereas, this forum is utilized to solve these problems; and

Whereas, the free flow of information between the physician community and representatives of Medicare and Medicaid should continue; therefore be it

RESOLVED, That the forum should be continued in its original format; and be it further

RESOLVED, That members in good standing with the ISMA should be allowed to appoint representatives, who might not be their direct employee, to attend the coalition meeting on their behalf at no charge.

RESOLUTION 95-21 Non-board certified members as members of managed care plans

Introduced by: C.G. Clarkson, M.D.
Indiana Academy of Family Physicians
Referred to: Reference Committee 4
Action: Adopted as amended

Whereas, family physicians are trained in a variety of medical specialty areas, including internal medicine, pediatrics, surgery (general and subspecialty), obstetrics and gynecology, dermatology, psychiatry and emergency medicine; and

Whereas, active members of the Indiana Academy of Family Physicians are required to secure 150 hours of approved CME every three years for continued membership; and

Whereas, the wide range of skills possessed by family physicians and the frequent opportunities to use them in their practices enables family physicians to be highly cost-effective and have excellent patient satisfaction; and

Whereas, numerous managed care organizations have established board certification as a criteria for membership; therefore be it

RESOLVED, That the ISMA join in a statewide effort with the Indiana Academy of Family Physicians to ensure that board certification not be used as the sole criteria for acceptance by a managed care organization.

RESOLUTION 95-22 Reimbursement of screening studies

Introduced by: Thomas Kintanar, M.D.
Indiana Academy of Family Physicians
Referred to: Reference Committee 4
Action: Adopted

Whereas, the continuing health care and welfare of our patients is of paramount concern to practicing physicians; and

Whereas, it is recognized that in certain patients, age and population demographic data have proven that certain populations are predisposed to certain disease processes (i.e. family history of colon cancer, heart disease, numerous risk factors, etc); and

Whereas, it has been recognized in many practicing clinicians' offices that the patients are finding it more and more difficult to get insurance reimbursement for

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"screening tests"; therefore be it

RESOLVED, That the ISMA advocate that third party payers reimburse for screening studies that are scientifically supported (such as those from the U.S. Task Force on Preventive Services).

RESOLUTION 95-23 Resident Medical Society membership

Introduced by: Resident Medical Society
Referred to: Reference Committee 4
Action: Adopted

Whereas, there currently exists a membership structure for resident physicians such that residents who currently hold membership in the Resident Medical Society of the ISMA do not hold membership in the county or district medical societies; and

Whereas, resident participation in organized medicine is a strong predictor of future membership; and

Whereas, the Resident Medical Society wishes to bring together all residents in the state to improve Federation recruitment of resident physicians and create a better communication link with the county and district medical societies; and

Whereas, the Resident Medical Society currently gains a delegate to the ISMA House of Delegates for every 50 members; and

Whereas, there is presently no mechanism for incoming residents and fellows to join for the six months (July through December) of their first year in Indiana unless they are senior medical students who just graduated from the Indiana University School of Medicine; and

Whereas, a one-time membership fee for county, district and state dues would attract more resident members and has proven to be effective through a previous pilot program where a one-time fee for state dues was implemented; therefore be it

RESOLVED, that all resident physicians, who hold membership in the Resident Medical Society or the county and district medical society, be required to hold membership in the Resident Medical Society of the ISMA and the county and district medical societies, with county medical society membership to be held in the county in which the resident lives or works; and be it further

RESOLVED, That the RMS have 4 delegate votes in the ISMA House of Delegates, and the resident members also be counted by the county medical societies

where the residents hold membership, for determination of the number of delegates allowed for that component society if they meet the requirements of the ISMA Constitution & Bylaws; and be it further

RESOLVED, That the state dues structure be changed so that all new members who are residents or fellows, no matter how long they have been in training, pay a one-time fee to the ISMA, which would cover their dues for the entire training period; and be it further

RESOLVED, That all new members who are residents or fellows in Indiana be exempt from paying county, district and state dues from July to December of the year they become a member; and be it further

RESOLVED, That this resolution shall not apply to any residents or fellows who have already joined the Resident Medical Society or the county medical society prior to the adoption of this resolution.

RESOLUTION 95-24 Repeal of mandated third trimester syphilis testing for pregnant women

Introduced by: John Denton, M.D., Anderson
Referred to: Reference Committee 2
Action: Adopted

Whereas, a syphilis test is required to be performed in the first trimester of pregnancy; and

Whereas, a third trimester test is not clinically necessary and is costly and inconvenient for patients; and

Whereas, the guidelines of the Indiana State Department of Health, Division of Maternal and Child Health, only require that a serologic screening for syphilis be performed on the initial prenatal care visit; and

Whereas, the Medicaid administration in Indiana only covers a third trimester test if the first trimester test was positive; and

Whereas, the Medicaid administration based the aforementioned policy on the directives of the American College of Obstetrics and Gynecology and the American Academy of Pediatrics; and

Whereas, the American College of Obstetrics and Gynecology and the American Academy of Pediatrics direct that a third trimester test should only be ordered for members of a high-risk population; therefore be it

RESOLVED, That the ISMA introduce a bill to the General Assembly for the 1996 legislative session to repeal the language of the Indiana Code (16-41-15-10)

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that unnecessarily requires the standard serological test for syphilis for women in third trimester of pregnancy.

RESOLUTION 95-25 Do-not-resuscitate policy

Introduced by: Lake County Medical Society
Martha Mechei, M.D.
Referred to: Reference Committee 2
Action: Referred to Board of Trustees

Whereas, a statewide uniform Do Not Resuscitate (DNR) policy for use of emergency medical services (EMS) personnel does not exist in Indiana; and

Whereas, such a policy would benefit all EMS personnel by application of a consistent medical standard; and

Whereas, other states have such a policy; and

Whereas, Indiana should develop such a policy: therefore be it

RESOLVED, That the ISMA develop legislation providing for a DNR policy for statewide use of basic and advanced life support personnel in the local EMS.

RESOLUTION 95-26 Practice limitations

Introduced by: Lake County Medical Society
Vijay Dave, M.D.
Referred to: Reference Committee 1
Action: Adopted

Whereas, the ability to practice medicine in a hospital is based upon professional staff determination of privileges; and

Whereas, once the privilege is extended its maintenance is appropriately part of professional staff responsibility; and

Whereas, a hospital board may have ultimate responsibility for privileges should the professional staff fail to carry out its responsibility; and

Whereas, no person's privileges should be restricted prior to appropriate professional review and recommendation; and

Whereas, hospitals may attempt to circumvent such review and recommendation by utilizing economic and contractual criteria without regard for individual quality; and

Whereas, such attempts are contrary to the intent and spirit of professional staff bylaws; therefore be it

RESOLVED, That the AMA support model hospital-medical staff bylaws requiring the same due process in limiting professional practice for economic or contractual reasons as is followed for quality rea-

sons; and be it further

RESOLVED, That the AMA clarify that practice limitations based on economic or contractual reasons are not reportable to the Physicians Data Bank.

RESOLUTION 95-27 Standard accounting format

Introduced by: Lake County Medical Society
Frank Hieber, M.D.
Referred to: Reference Committee 3
Action: Adopted as amended

Whereas, managed care entities are becoming widespread throughout Indiana; and

Whereas, many of these entities are businesses; and

Whereas, entities organized for profit may emphasize profit over service; and

Whereas, it is in the public interest to know the extent of profit as compared to the cost of services; and

Whereas, a public reporting system would be most expeditious; therefore be it

RESOLVED, That the ISMA determine:

1. Whether the insurance commissioner has developed a standard accounting format for use by any HMO, PPO or other managed care program operating within the state; and

2. Whether all such programs utilize such standard accounting formats for purposes of reporting; and

3. Whether each such program reports on the standard format its annual income and expenses clearly showing its annual and cumulative surplus due to health care services provided within the state; and be it further

RESOLVED, That the ISMA actively seek the information regarding annual insurance company financial disclosure for dissemination to members as appropriate.

RESOLUTION 95-28 Release of medical information

Introduced by: Thomas Brubaker, M.D.,
Griffith
Referred to: Reference Committee 3
Action: Withdrawn by author

Whereas, third party payers, such as insurance companies, frequently require information to support claims for payment; and

Whereas, the standard is to obtain consent for release of medical information; and

Whereas, direct payment from patients is often

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illegal (such as in Worker's Compensation, Medicare and Medicaid) and prohibited by some managed care contracts; therefore be it

RESOLVED, That the ISMA work for legislation that prohibits revocation of a consent for release of information to payers once services have been rendered unless payment for services has occurred.

RESOLUTION 95-29 Physician owned or operated managed care programs
Introduced by: Lake County Medical Society
Thomas Brubaker, M.D.
Referred to: Reference Committee 1
Action: Adopted in lieu of Resolution 95-7

Whereas, managed care entities of all kinds are becoming more widespread throughout Indiana; and

Whereas, managed care entities are formed and operated by many different parties of interest; and

Whereas, entities can be organized entirely for profit and operated for financial benefit of individuals not providing care; and

Whereas, it would be in the best interest of providers and patients to assure that managed care entities are controlled by those having the quality care interests of the patient as the primary goal; and

Whereas, a statewide entity could best serve the patient care interests of the physicians of Indiana; and

Whereas, the ISMA can serve as a catalyst for developing patient friendly organizations; and

Whereas, an excessive percentage of premium is frequently retained for industry profits; therefore be it

RESOLVED, That the ISMA investigate the creation of regional or statewide managed care programs, owned and operated, at least in part, by the physicians of Indiana; and be it further

RESOLVED, That this resolution be referred to the Board of Trustees for appropriate implementation.

RESOLUTION 95-30

Limiting physician participation

Introduced by: Lake County Medical Society
Nicholas Polite, M.D.
Referred to: Reference Committee 3
Action: Not adopted

Whereas, public funds (including Medicaid) are available to the Healthy Start Program; and

Whereas, part of that program pays for delivery by contracted physicians; and

Whereas, such physician payments (which do not include physician prenatal care) are more than for direct Medicaid payment (which requires prenatal care); and

Whereas, not all qualified physicians who would like to participate may contract with Healthy Start to provide services; and

Whereas, such denial of participation is improperly discriminatory and restrictive of quality care; therefore be it

RESOLVED, That the ISMA support legislation and regulations preventing differing Medicaid payment levels for similar services by the same medical specialty, based upon any plan limiting open participation by all members of the specialty meeting the qualifications; and be it further

RESOLVED, That the ISMA support changes to Indiana legislation and regulations to require a program, like Healthy Start, to allow any physician qualified and willing to provide medical services, like those provided under the program, to participate to the same extent as any other physician in the program.

RESOLUTION 95-31

Physician protection against managed care retaliation for acting as patient advocates

Introduced by: Fort Wayne Medical Society
Referred to: Reference Committee 3
Action: Adopted as amended

Whereas, Indiana is now seeing an increase in managed care agreements; and

Whereas, capitation, which is inherent in many of these agreements, limits the physician's ability to provide care which meets the patients' needs in some cases; and

Whereas, physicians acting as patient advocates, who speak out in objection to the effect of those limits on patient care may be subject to retaliation; and

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Whereas, a physician may be deselected from a managed care arrangement solely for being a patient advocate; and

Whereas, the state of California has already enacted protection for physicians as patient advocates; therefore be it

RESOLVED, That the ISMA petition the Indiana State Legislature to enact legislation which would provide relief to physicians subject to retaliation for acting as patient care advocates.

RESOLUTION 95-32 Physician-specific data release

Introduced by: Vanderburgh County Medical Society
Referred to: Reference Committee 1
Action: Adopted

Whereas, business coalitions exist in at least Fort Wayne, Indianapolis, Evansville and northern Indiana; and

Whereas, these business coalitions are linked to the Mid West Business Coalition out of Illinois; and

Whereas, these coalitions have as one of their primary goals the release of physician-specific outcomes data to employers and their employees (our patients); and

Whereas, these discussions will occur in each community at different times and under different circumstances; and

Whereas, the mechanisms to measure this data are inaccurate and prone to problems; and

Whereas, there is some question as to the protection of physician-specific outcomes data as peer review information and therefore not subject to public release under existing Indiana law; and

Whereas, the Health Care Quality Improvement Act of 1985 addresses the release of physician-specific data; and

Whereas, other areas have successfully avoided the release of physician-specific outcomes data; therefore be it

RESOLVED, that the ISMA legal staff research and disseminate immediately to county medical society executives with follow-up release to physicians the current legal opinions and activities of other states on the issue of physician-specific data release; and be it further

RESOLVED, that the ISMA formulate a position based on this information.

RESOLUTION 95-33

Introduced by:

Referred to:

Action:

Modification of the Indiana peer review statute

Vanderburgh County Medical Society
Reference Committee 3
Referred to Board of Trustees

Whereas, the Indiana Peer Review Statutes (I.C. 34-4-12.6) provide immunity to individuals who participate in peer review activities and who meet the statutory requirements; and

Whereas, Physician's Assistance Committees (PACs) or Impaired Physicians Committees are generally organized under the Indiana Peer Review Statutes; and

Whereas, in some instances, individuals may come forward to the PAC with information regarding a potentially impaired physician if they can remain anonymous; and

Whereas, Section 34-4-12.6-2 (d) recognizes that a provider "under investigation" has access to his/her accumulated records regarding the provider's personal practice from the peer review committee, in this case the PAC; and

Whereas, this provision has the capability to void the anonymity of the informant and therefore greatly diminish the likelihood of individuals coming forward without the protection of their identity and, in some cases, endanger that individual; therefore be it

RESOLVED, that ISMA draft legislation that may amend the Peer Review Statute to recognize that, in special circumstances such as a Physician's Assistance Committee or an Impaired Physician's Committee, the identity of an informant may be protected under the statute; and be it further

RESOLVED, that ISMA review the entire statute to ensure that language, particularly the term "under investigation," is reasonable in the context of Physician Assistance Committees and their important activities in early identification of physicians impaired by psychiatric illness, psychoactive substance abuse/dependency or physical illness.

RESOLUTION 95-34 Reaffirmation of the provisions of the Patient Protection Act

Introduced by: Vanderburgh County Medical Society
Referred to: Reference Committee 1
Action: Adopted

Whereas, the ISMA House of Delegates adopted resolution 94-15 in 1994, which called for the elements of the AMA's Patient Protection Act to become a legislative initiative of the ISMA in the 1995 Indiana legislature to protect the rights and choices of Indiana patients and their physicians; and

Whereas, elements of the AMA's Patient Protection Act were in fact introduced as bills in the 1995 legislative session; and

Whereas, this legislation did not pass out of committee; and

Whereas, the need for statutory protections of the rights and choices of Indiana patients has certainly increased in the past year; therefore be it

RESOLVED, That the ISMA reaffirm its support of the concepts and elements of the Patient Protection Act and once again mount a legislative initiative to cause its passage in the 1996 legislative session.

RESOLUTION 95-35 Ameritech's Caller ID

Introduced by: Vanderburgh County Medical Society
Referred to: Reference Committee 4
Action: Adopted as amended

Whereas, Ameritech offers for a fee a new service to all customers called "Caller ID" which allows people to know who is calling them before they answer their telephone; and

Whereas, the identification of the caller is accomplished by a small device that is placed between the telephone and wall jack which is capable of displaying the phone number and name of the person calling before the telephone is answered; and

Whereas, physicians frequently communicate with patients in on-call situations from either their home or their private office numbers; and

Whereas, it is not inconceivable that a narcotics-seeking patient might phone through the answering service to an on-call physician who might return that patient's call only to have his/her private phone number forever available to this patient; and

Whereas, many people pay for the extra privacy of an unlisted and/or non-published number; and

Whereas, the Caller ID service not only negates these services and violates the privacy of those who pay for them but also enables those who have the Caller ID services to dial a three-character prefix and recall the last caller's number; and

Whereas, while Ameritech provides each customer with the option of dialing a three-character prefix prior to dialing the actual telephone number which then blocks the Caller ID function, this is at best an inconvenience and, in cases of some PBX type of telephone systems in offices or hospitals, is not possible; and

Whereas, Indiana is one of only a handful of states which does not have a provision for blocking Caller ID other than the three-character prefix; and

Whereas, the Federal Communications Commission has recently come to recognize the potential for use of Caller ID by an abusive spouse to track down the abused spouse or to at least have an easy mechanism to harass the abused spouse; therefore be it

RESOLVED, that ISMA contact Ameritech and all other telecommunications companies and with the force of its membership request that all customers be offered, at no charge, the option to block Caller ID.

RESOLUTION 95-36 Provider representative

Introduced by: Vanderburgh County Medical Society
Referred to: Reference Committee 4
Action: Adopted as amended

Whereas, large insurance conglomerates are purchasing smaller companies; and

Whereas, this is resulting in a consolidation of insurance companies who then have the ability to control large segments of the provider market by virtue of their market dominance; and

Whereas, this control is manifested in unreasonable requests for procedure justification as well as routine denial of care and denial of claims; and

Whereas, the physician is entrusted and charged with patient care responsibility and is the qualified patient advocate; and

Whereas, there is an insulation of the insurance carriers and no recourse for the physician and his/her patient in these instances; and

Whereas, the commissioner of insurance of the state of Indiana only responds to patient or insurance company inquiries, and not to physician concerns as

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the primary care giver, about denials of care; therefore be it

RESOLVED, That the ISMA encourage the commissioner of insurance of the state of Indiana to establish and fund a provider representative within that office who would oversee and be responsible to providers for review and adjudication of unreasonable practices by insurers including, but not limited to, unreasonable requests for procedure justification and denials of care or claims.

RESOLUTION 95-37 Injuries from fireworks

Introduced by: Boone County Medical Society
Referred to: Reference Committee 2
Action: Adopted as amended

Whereas, public fireworks displays are prepared and executed by persons trained in safe methods; and

Whereas, each year more than 3,000 children suffer eye damages from fireworks. The typical victim is male, age 13-15; and

Whereas, bottle rockets cause 83% of eye injuries. Bottle rockets can shoot in erratic and unpredictable directions. Other rockets can be even more dangerous. Smaller bottle rockets can be propelled at 35-75 mph. Large ones take off at 200 mph; and

Whereas, class C fireworks, including bottle rockets, are legal in 30 states. In states that have banned fireworks, people are still hurt by "bootleg" fireworks brought from other states; and

Whereas, only a nationwide prohibition and strict enforcement will reduce the tragic toll; and

Whereas, the fireworks lobby is interested in legislation to liberalize sales of fireworks without risk or responsibility for fireworks injuries; and

Whereas, some state legislatures have established legislation to limit fireworks injuries; therefore be it

RESOLVED, That legislation be supported to curtail or eliminate sales of fireworks; and be it further

RESOLVED, That the ISMA consider a resolution to submit to the AMA to seek similar federal legislation; and be it further

RESOLVED, That the ISMA support, through any means possible, an education program at the grade school and high school level, that addresses the dangers of fireworks and especially the ocular injuries caused by bottle rockets.

RESOLUTION 95-38

Introduced by: Indiana Chapter of the American College of Emergency Physicians Reference Committee 4
Referred to: Action: Adopted

Whereas, 42 U.S.C. 1935dd mandates a medical screening exam for all patients presenting to any emergency department requesting care; and

Whereas, the screening exam must also avail itself to all hospital ancillary services including lab and x-ray; and

Whereas, Indiana's Office of Medicaid Policy and Planning has established a new Risk Based Managed Care program, which refuses payment for emergency physicians when the visit is deemed "routine"; and

Whereas, these policies will result in decreased access to emergency departments for Medicaid patients and will offer no reimbursement mechanism for emergency physicians; therefore be it

RESOLVED, That the Indiana State Medical Association will work with the governor's office and the Indiana General Assembly to ensure access to the emergency department for all Medicaid patients and ensure a mechanism of reimbursement for emergency physicians for all patients evaluated in the emergency department.

RESOLUTION 95-39

Introduced by: Indiana Chapter American College of Emergency Physicians Reference Committee 2
Referred to: Action: Withdrawn by author

Whereas, Section 153 of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), a program created several years ago to encourage states to enact a safety belt and all-rider motorcycle helmet use law that is unique in that it does not sanction states, and therefore our state will not lose a penny of federal funds; and

Whereas, Section 153 is a priority of the health, safety and business community and hundreds of groups representing hundreds of thousands of Americans support this program and have worked for its implementation; and

Whereas, it is our opinion that our state's resources would be better spent helping our own state comply

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with Section 153, rather than attempting to undermine this program; and

Whereas, in a poll conducted by *The Indianapolis Star*, over 70% of Hoosiers support a mandatory helmet law; and

Whereas, at a time when everyone is concerned with rising health care costs, a basic injury prevention program that will help lessen the burdens of our emergency departments, hospitals, rehabilitation centers and welfare programs should be a priority; and

Whereas, taxpayers pick up much of the bill for people who are injured in motor vehicle crashes and pay up to 80% of the cost for injured motorcyclists; and

Whereas, mandatory safety belt and helmet use is proven to prevent injuries and deaths. According to NHTSA, with 100% motorcycle helmet use, our state would have saved 18 lives and \$17.9 million in 1992 alone, and 210 lives and \$228.1 million between 1984 and 1994; therefore be it

RESOLVED, That the state of Indiana needs an all-rider motorcycle helmet use law, and that the ISMA support Section 153 and seek enactment of a new state all-rider motorcycle helmet law.

RESOLUTION 95-40 Health care worker violence

Introduced by: Indiana Chapter of the American College of Emergency Physicians
Reference Committee 3
Action: Adopted as amended

Whereas, violence against health care workers has resulted in death and injury of emergency personnel, including three physicians in 1993 at USC Medical Center; and

Whereas, such incidents of violence are common (1992 survey of 103 California hospitals found that 58% of respondents reported injuries to staff, visitors or other patients that were related to acts of violence, and 41% of the time the weapon was a gun; and a 1991 survey of emergency nurses found that 67% have reported at least one assault during their careers); therefore be it

RESOLVED, That the Indiana State Medical Association work with the Indiana State Nurses Association and the Indiana Paramedics Association to support legislation calling for stiffer criminal penalties for physical assault of health care workers in the carrying out of their professional duties; and be it further

RESOLVED, That ISMA support educational efforts on the prevention of assault on health care workers.

RESOLUTION 95-41 Poison control centers

Introduced by: Indiana Chapter of the American College of Emergency Physicians
Reference Committee 2
Referred to:
Action: Adopted

Whereas, there were over 1.5 million calls to Poison Control Centers in 1989 and estimates of actual poisonings were over twice that amount; and

Whereas, a majority of the poisonings reported were in children under the age of five, and 80-90% of child and adult poisonings result in hospital admissions; and

Whereas, Methodist Hospital of Indianapolis is currently the only poison control center operating in Indiana and it is severely financially strained; therefore be it

RESOLVED, That the Indiana State Medical Association support the concept of a statewide poison control system; and be it further

RESOLVED, That the ISMA advocate for adequate state funding for the poison control center.

RESOLUTION 95-42A Electronic filing

Introduced by: Delaware-Blackford County Medical Society and David Dersch, M.D.
Reference Committee 4
Referred to:
Action: Adopted substitute Resolution 95-42A instead of 95-42 and 95-46

Whereas, medical practice parameters, including reimbursement procedures, are constantly changing to improve the quality of medical care, to increase the efficiency of third party reimbursements and to keep from unnecessarily having to increase the costs related to these; and

Whereas, Medicare and Medicaid programs discriminate by requiring special consent forms for sterilization and hysterectomy procedures to accompany reimbursement requests for these procedures; and

Whereas, this requirement makes it impossible to file electronically, thereby resulting in increased

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inefficiency and increased cost to process reimbursements; and

Whereas, it would be more efficient and cost effective if all patient care reimbursement, whether the patient be insured by Medicaid, Medicare or private insurance companies, could be filed electronically; therefore be it

RESOLVED, That the ISMA work with Health and Human Services to change the Medicare and Medicaid reimbursement policy for patients who receive hysterectomy or sterilization procedures so that all reimbursements can be processed electronically; and be it further

RESOLVED, That the ISMA work with Medicaid to allow physicians to use the HCFA 1500 form for all Medicaid claims so they can file electronically.

RESOLUTION 95-43 Pre-authorization consent forms

Introduced by: Delaware-Blackford County Medical Society and David Dersch, M.D.
Referred to: Reference Committee 4
Action: Adopted as amended

Whereas, consent forms are necessary for the medical records; and

Whereas, Medicaid requires pre-authorization by written consent to the state agency; and

Whereas, private insurance companies pre-authorize by telephone using a confirmation code number; therefore be it

RESOLVED, That the ISMA work with Medicaid to make preauthorization available by phone.

RESOLUTION 95-44 Insurance discrimination against victims of domestic violence

Introduced by: Indiana Chapter, American College of Emergency Physicians and John McGoff, M.D.
Referred to: Reference Committee 3
Action: Adopted

Whereas, Domestic violence and abuse is the single most common cause of injury to women; and

Whereas, The lack of appropriate resources has resulted in inadequate medical, social and legal services for victims of domestic violence and abuse; and

Whereas, A recent congressional study revealed that half of all major insurance companies are known to deny health, life and other types of insurance coverage to victims of domestic violence and abuse because having a history of abuse makes the victims a bad insurance risk;

Whereas, The fear of denial of insurance coverage may discourage victims of domestic violence and abuse from reporting the abuse to their doctors and to law enforcement agencies; and

Whereas, At least 16 states now prohibit insurance discrimination against victims of domestic violence and abuse; therefore be it

RESOLVED, That ISMA oppose the denial of insurance coverage to victims of domestic violence and abuse and seek and support state legislation to prohibit such discrimination.

RESOLUTION 95-45 Regulation of medicine

Introduced by: Indiana Roentgen Society Michael A. Kinzer, M.D., President
Referred to: Reference Committee 3
Action: Referred to Board of Trustees

Whereas, technological forces are converging to transform telemedicine into a permanent, useful and affordable tool for physicians and health care networks, particularly in rural and underserved areas; and

Whereas, patients are entitled to receive the highest quality of medical care from their physicians, no matter if that care is rendered face to face or via telemedicine; and

Whereas, a physician is required to hold an Indiana license in order to practice medicine in this state and telemedicine involves this practice; and

Whereas, the state of Indiana has no legal mechanism by which to regulate non-resident physicians who are practicing telemedicine on patients located in Indiana; and

Whereas, the ability of the state to discipline such practitioners is both necessary and desirable for the protection of the citizens of this state and for the public interest, health, welfare and safety; therefore be it

RESOLVED, That ISMA support legislation to regulate non-resident physicians who practice telemedicine on patients in this state.

RESOLUTION 95-46 Use of HCFA 1500 form by

Introduced by: **Medicaid**
Delaware-Blackford County
Medical Society and
David Dersch, M.D.
Referred to: Reference Committee 4
Action: Adopted substitute Resolution
95-42A in lieu of 95-46

Whereas, Medicaid agreed to the use of the HCFA form, and the Medicaid standards for information reporting do not conform to the HCFA 1500 form; and

Whereas, it is impossible to record data electronically using the information reporting form that Medicaid requires, thereby increasing processing costs and inefficiency; therefore be it

RESOLVED, That the ISMA work with Medicaid to allow physicians to use the HCFA 1500 form for all Medicaid claims so they can file electronically.

RESOLUTION 95-47A Young Physician Society
Introduced by: Marc Duerden, M.D.
Young Physician Ad-Hoc
Committee
Referred to: Reference Committee 4
Action: Adopted substitute
Resolution 95-47A

Whereas, young physician organizations have been established to promote involvement of all physicians under the age of 40 or in the first five years of practice; and

Whereas, the American Medical Association has created a Young Physician Section and has encouraged all state societies to develop similar organizations; and

Whereas, active participation of the membership is crucial to the success of the Indiana State Medical Association and to its goals to enhance the leadership skills of its members and to increase member participation from different segments of the physician population; and

Whereas, the ISMA has created an ad hoc committee to evaluate ways to better serve the young physicians in Indiana; therefore be it

RESOLVED, That the ISMA create a component society of at least 50 new ISMA members which qualify as young physicians under 40 years of age and/or in the first five years of practice. This component society will have one vote in the ISMA House of Delegates.

RESOLUTION 95-48 Medical liability coverage for

jail and prison physicians
Daniel H. Cannon, M.D., Floyd
County
Referred to: Reference Committee 3
Action: Adopted as amended

Whereas, the attorney general's office has indicated it will no longer provide medical liability coverage for independent contractor physicians who treat inmates in prisons and jails in Indiana; and

Whereas, the medical liability companies in Indiana have stopped writing coverage for these physicians; therefore be it

RESOLVED, That the ISMA support legislation that will address civil liability coverage for physicians who provide care to jail and prison inmates.

RESOLUTION 95-49 Tax-exempt hospitals
competing against tax-paying
health care providers
Introduced by: District 5 Medical Society
Referred to: Reference Committee 3
Action: Referred to Board of Trustees
for study and report back to
House of Delegates

Whereas, tax-exempt hospitals throughout the state of Indiana and the nation are competing against tax-paying health care providers in the delivery of outpatient health care services; and

Whereas, this is unfair competition with the tax-exempt hospital having a 40-50% tax advantage over the tax-paying provider; and

Whereas, it is also unfair to taxpayers and health care consumers since tax-exempt hospitals could better use these extra funds to reduce the cost of health care to the general public instead of using them to build unneeded health care facilities that compete directly against private practitioners and hospitals who do pay taxes; and

Whereas, the day is long gone when hospitals were charitable institutions as they originally were at their tax-free inception in the late 1800s and early 1900s, when they did render charitable care, but now, with the inception of welfare and Medicaid, private insurance money and Medicare, they have as many or more financial resources as any health care provider and are no longer in need of their tax-exempt status; and

Whereas, they are abusing their tax-exempt status by using these county, state and federal moneys to

■ resolutions

build ever bigger and bigger institutions, and to compete more and more with those who provide the tax moneys upon which they depend; therefore be it

RESOLVED, That the District 5 Medical Society go on record stating that they think every tax exempt hospital in the state of Indiana should pay state income tax and county tax; and be it further

RESOLVED, That they should also be paying federal income tax just as all private health care providers do; and be it further

RESOLVED, That the state of Indiana establish a certificate of need legislation for any hospital construction, in-patient or out-patient.

RESOLUTION 95-50 ISMA/ Indiana Hospital Association joint venture

Introduced by: ISMA Executive Committee
Referred to: Reference Committee 1
Action: Adopted as amended

Whereas, there currently exists business coalitions that have been requesting outcome, utilization and other kinds of information from physicians with increasing influence; and

Whereas, some state legislatures have mandated the collection of such information; and

Whereas, the Indiana State Department of Health is piloting a data collection project and will serve as a future source for some community health status information requested by purchasers through the Indiana Health Data Center; and

Whereas, the American Medical Association is aware of this national trend to collect physician specific data and has created guidelines for protecting physician and patient information while still maintaining the usefulness of such information; and

Whereas, the future of collecting health data without a state mandate is unclear and may soon be out of the hands of Indiana physicians; and

Whereas, the Indiana State Medical Association is currently in the position to influence and control the flow of health data on behalf of Indiana physicians if given the ability to do so during this small window of opportunity; and

Whereas, the Indiana State Medical Association should work for the best interests of Indiana physicians in the collection of health data; therefore be it

RESOLVED, That the Indiana State Medical Association work jointly with the Indiana Hospital Association in order to educate Indiana physicians and

to create the means to collect health data; and be it further

RESOLVED, That the Indiana State Medical Association demand that the information be accurate and reliable prior to any dissemination of information; and be it further

RESOLVED, That the ISMA House of Delegates approve the funds to participate in this project with the Indiana Hospital Association for the betterment of Indiana physicians and the medical profession; and be it further

RESOLVED, That individual physicians have the opportunity to respond to data indicating that he or she is an outlier prior to release of this data to the public.

RESOLUTION 95-51 Medical license fees

Introduced by: Douglas W. Morrell, M.D.,
Referred to: Rushville
Action: Reference Committee 3
Adopted as amended

Whereas, the Indiana Medical Licensing Board has limited resources to investigate medical liability, fraud and abuse cases; and

Whereas, a strong and informed Indiana Medical Licensing Board would be of great benefit to both the medical community as well as the public at large; therefore be it

RESOLVED, That the medical license fees paid by all physicians be put in a dedicated fund for the exclusive use of the Medical Licensing Board so it will have adequate funds to perform its mission of protecting the public.

RESOLUTION 95-52 Block grants

Introduced by: Timothy N. Brown, M.D.,
Referred to: Crawfordsville
Action: Reference Committee 1
Adopted

Whereas, Congress is considering restructuring the Medicaid program to include payments to the states in the form of block grants; and

Whereas, physicians should provide input on the implementation of the block grants; therefore be it

RESOLVED, That the ISMA seek as public policy a partnership with physicians, public health officials, employers and state government to work on block grants for the care of the citizens of the state of Indiana;

and therefore be it further

RESOLVED, That the partnership also work to identify outcomes measures and establish reporting mechanisms for identifying benchmarks for attaining optimal patient health outcomes; and therefore be it further

RESOLVED, That incentive programs be established to encourage providers to achieve the benchmarks.

RESOLUTION 95-53 Resolution of appreciation to honor J. William Wright II, M.D.

Whereas, Dr. J. William Wright's insight and leadership in assisting the ISMA's legislative effort to enact the Indiana Medical Malpractice Act resulted in landmark tort reform that went into law in April 1975 and has lasted for two decades; and

Whereas, Dr. Wright has provided ongoing financial contributions and his personal efforts to preserve INCAP; and

Whereas, all Indiana physicians have experienced the loss of a physician leader and grassroots organizer whose efforts have benefited all patients in Indiana; therefore be it

RESOLVED, That this 1995 ISMA House of Delegates publicly acknowledge their grateful appreciation for the extensive contributions of J. William Wright II, M.D., which continue to provide benefit to all Indiana physicians and their patients.

RESOLUTION 95-54 Resolution of appreciation to honor Walter J. Daly, M.D.

Walter J. Daly, M.D., is a Hoosier from Delaware County that has served his state with distinction, perseverance and prudence.

He attended Indiana University at Bloomington and was a physiology assistant to Paul Harmon, professor and chairman of the department. He graduated at the top of his class from Indiana University

School of Medicine in 1955. He served an internship and residency in internal medicine at Long Hospital, and the Indiana University Medical Center in 1955, 1956, 1957, and 1959-60. He was a special post-doctoral fellow in pulmonary medicine from 1960-62 with John Hickam, M.D., and was a captain in the U.S. Army from 1957-1959.

For 13 years prior to assuming the deanship, he was the James O. Ritchy Professor and chairman of the department of internal medicine. He served on the AMA residency review committee and the liaison committee with internal medicine. On Walter's watch as dean from 1983-1995, the school sustained and gained international leadership in education, research and service.

Walter Daly's understanding, candor and commitment have benefited each of us and people worldwide. For all of this, the members of the ISMA express their thanks and best wishes for his continued commitment to excellence.

RESOLUTION 95-55 Resolution of appreciation for Marvin E. Priddy, M.D.

Whereas, Marvin E. Priddy has faithfully and energetically served his profession at the national level as a delegate to the AMA for over 20 years; and

Whereas, Marvin E. Priddy, for 10 of those years, was elected by his fellow Hoosier delegates to the honorable and responsible position as chairman of the Indiana delegation; and

Whereas, Marvin E. Priddy has now found it necessary to retire from his position on the AMA delegation; therefore be it

RESOLVED, That this ISMA House of Delegates now assembled express its sincere appreciation for all of his efforts in the promotion and defense of the profession; and be it further

RESOLVED, That this resolution be presented to the AMA House of Delegates for their consideration. □

ISMA Fifty Year Club



The Indiana State Medical Association honors 82 physicians this year in recognition of their 50 years of service as loyal and devoted practitioners of medicine. These new members of the Fifty Year Club will join the roster of other distinguished Hoosier physicians inducted into the Fifty Year Club since its inception in 1948.

The ISMA wishes to formally acknowledge the following physicians for their unselfish service to their patients and profession:

Dolores G. Adeva, M.D., Indianapolis
Joseph E. Alfanto, M.D., Chicago
Robert K. Allen, M.D., Indianapolis
Joseph W. Begley, M.D., Evansville
George H. Belshaw, M.D., Bozeman, Mont.
Edward J. Berman, M.D., Naples, Fla.
Donald P. Bixler, M.D., Anderson
Crist A. Blassaras, M.D., Anderson
Peter A. Blichert, M.D., Fort Wayne
James Bopp, M.D., Terre Haute
Harvey J. Brechtl, M.D., Mishawaka
Robert E. Bryan, M.D., Kendallville
George M. Buehler, M.D., Borden
Milton A. Butts, M.D., South Bend
Daniel H. Cannon, M.D., New Albany
Henry W. Conrad, M.D., Hamilton, Mo.
Stanton E. Cope, M.D., Clearwater, Fla.
Reuben A. Craig, M.D., Naples, Fla.
Theodore R. Crawford, M.D., Noblesville
William H. Davis, M.D., Crawfordsville
Frank C. Donaldson, M.D., Anderson
Edward G. Dovey, M.D., Summerland Key, Fla.
Marion C. Drake, M.D., Elwood
Richard W. Dyke, M.D., Indianapolis
Martin E. Feferman, M.D., South Bend
James O. Futterknecht, M.D., Elkhart
Tierry F. Garcia, M.D., Indianapolis
Robert W. Gilmore, M.D., Michigan City

Russell E. Graf, M.D., Bowling Green, Ky.
Jack C. Greisen, M.D., Hammond
Harold R. Griffith, M.D., La Jolla, Calif.
James R. Guthrie, M.D., Richmond
John J. Hartman, M.D., Angola
Eugene L. Hendershot, M.D., Evansville
Ray A. Henn, M.D., Greenfield
Harland V. Hippensteel, M.D., Auburn
Paul R. Honan, M.D., Lebanon
James E. Hull, M.D., Lafayette
Harry L. Hunter, M.D., Bethesda, Md.
John H. Ivy, M.D., Elkhart
John F. Jackson, M.D., Kewadin, Mich.
Allen W. Jones, M.D., Indianapolis
Donald M. Kerr, M.D., Bedford
Harold King, M.D., Indianapolis
Paul J. Kirkhoff, M.D., Indianapolis
Bernard I. Levatin, M.D., Sarasota, Fla.
Charles K. Liddell, M.D., Michigan City
Frank P. Lloyd Sr., M.D., Indianapolis
Alfonso E. Lopez, M.D., Portland
James R. Mackenzie, M.D., Indianapolis
Rodolfo M. Madlang, M.D., Beverly Hills, Calif.
William M. Matthews, M.D., Culver
Bruce A. McArt, M.D., Elkhart
Bobby L. Moss, M.D., Indianapolis
Joseph F. Murphy, M.D., Lansing, Ill.
Robert F. Nagan, M.D., Indianapolis
Charles A. Novy, M.D., Garrett

E. Camille Parker, M.D., Logansport
Eudell G. Paul, M.D., Ely, Minn.
Stephen R. Phelps, M.D., South Bend
George C. Poolitsan, M.D., Bloomington
Bernard F. Poracky, M.D., Portage
Shirley G. Price, M.D., Elberfeld
Edsel S. Reed, M.D., Jeffersonville
Ordonio J. Reyes, M.D., Carmel
Donald L. Rogers, M.D., Indianapolis
Joel W. Salon, M.D., Fort Wayne
John R. Scott, M.D., Indianapolis
W. Courtney Seagle, M.D., Bloomington
Francis M. Sellers, M.D., South Bend
Charles F. Smith, M.D., Kokomo
Sanford C. Snyderman, M.D., Fort Wayne
Chen T. Sun, M.D., Hebron
James A. Taylor, M.D., Scottsdale, Ariz.
Charles J. VanTassel, M.D., Carmel
Tom W. Wachob, M.D., Kokomo
Edwin M. Walker, M.D., South Bend
Jack D. Whitaker, M.D., Anderson
Edward F. Wierzalis, M.D., Raleigh, N.C.
Gilbert M. Wilhelmus, M.D., Evansville
William M. Woodward, M.D., Westville
William H. Zimmerman, M.D., Elkhart □

ISMA



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Sleeping position and sudden infant death syndrome:

A review of the literature and the implications for infants in the United States

Catherine M. Bradshaw, M.D.
Chicago, Ill.

The incidence of sudden infant death syndrome (SIDS) in the United States is approximately 1.3 per 1,000 live births and has remained essentially unchanged in the past decade, despite an overall decrease in infant mortality. The incidence of SIDS in other parts of the developed world had also remained constant until recently when several countries began adopting the supine or lateral sleeping position for their infants.¹ A number of studies from various countries have suggested a causal relationship between the prone sleeping position and SIDS. Many believe that advocating the non-prone sleeping position for healthy infants is a simple and effective way of saving the lives of at least a small number of infants. In 1992, the American Academy of Pediatrics officially recommended that healthy infants, excluding those with gastroesophageal reflux and those with certain upper airway anomalies, be put down to sleep on their sides or backs.¹⁸ However, the studies upon which this recommendation is based were conducted in countries whose infant care practices differ from those in the United States, and there is some question of whether

the findings of these studies will be transferable to the United States. Because of this question, the AAP recommendation has been criticized by those expressing concern over the possible negative effects such a recommendation may have. The purpose of this paper, therefore, is to examine the available evidence supporting such a recommendation, discuss the applicability of these findings to infant care practices in the United States and determine whether the beneficial effect of avoiding the prone position is likely to outweigh the possible harmful effects.

Epidemiological studies

One of the first suggestions that the prone position might be associated with an increased risk of SIDS was the observation that the incidence of SIDS is extremely low in Hong Kong, where nearly all babies are put to sleep swaddled in the supine position. The rate in Hong Kong is 0.04 per 1,000 live births versus two to three per 1,000 in Western countries.² Some postulated that this phenomenon may be attributable to the fact that, due to crowded living conditions, babies in Hong Kong are hardly ever left alone.³ Still, this finding has prompted others to investigate further the relationship of the prone sleeping

position to SIDS.

Retrospective studies

Several retrospective case-control studies from Tasmania, England, New Zealand, the Netherlands and Hong Kong, among others, have shown a significant association between the prone sleeping position and SIDS. A few of these studies are recounted here.

Tasmania – A 1980-1986 study in Tasmania of 167 cases of SIDS compared with 334 controls showed 59% of cases sleeping prone versus 43% of controls, a relative risk of 1.9 for the prone versus the lateral position. This relative risk, as will be discussed later, is lower than that found by later studies comparing the prone to the supine position. Very few babies in this group slept supine, so the risk for supine sleeping could not be calculated. Controls in this study were matched for age, hospital of birth, season of birth and sex.⁴ A 1989-1991 study in Tasmania showed the unadjusted odds ratio for "usually" sleeping prone to be 5.04. After adjusting for maternal age and birth weight, the odds ratio was 13.91. Breastfeeding and sex were found not to be confounders of this relationship.⁵

England – A 1990 study from the English counties of Avon and Somerset looked at 67 cases of

SIDS and 134 controls matched for age, date and neighborhood and found a relative risk of 8.8 for "put to sleep prone" versus put to sleep on the side or back.⁶

New Zealand – The incidence of SIDS in New Zealand in 1986-87 was 7.3 per 1,000, one of the highest in the world. In a 1986-87 study of SIDS in southern New Zealand, 81% of 49 cases were found prone, compared to a general prevalence of prone sleeping estimated to be 49%. Seventy-nine percent of the SIDS babies found prone, or 71% of all cases, were found with their faces down or their heads covered with bedding.⁷ A 1991 study in New Zealand of 128 cases and 503 controls showed an unadjusted odds ratio of 5.74 for "last placed" prone and a population attributable risk of 52.1% after controlling for breast-feeding and maternal smoking. The controls for this study were randomly selected from all births and matched for age distribution only.⁸

The Netherlands – A 1989 study from the Netherlands of SIDS cases involving primarily normal birth weight infants showed a relative risk of 9.3 for "usually placed prone" and 4.9 for "last placed prone," after correction for prematurity, age, socioeconomic status and local traditions. The relative risks were reportedly lower before correction for these variables.⁹

Hong Kong – A small 1986-87 study in Hong Kong of 16 cases and 32 controls matched for sex and age showed 44% of cases versus 7% of controls with prone as the "usual" sleeping position, giving an odds ratio of 11.67. There was no difference between cases and controls with regards to maternal smoking, socioeconomic status, birth weight, gestational age, sleeping with parents or

sleeping in parents' room. The incidence of SIDS was 0.3 per 1,000. This was higher than the 0.04 per 1,000 reported previously, probably due to a change in diagnostic criteria.¹⁰

Several factors must be taken into consideration when interpreting these case-control studies. The studies differ slightly in the age ranges that they allowed for SIDS cases, with a low-cutoff age ranging from birth to one month and a high-cutoff age ranging from 40 weeks to one year, but this variation does not detract from the strength of the studies taken as a whole.

Another consideration is that since common health care practices may be taught to all parents at a given hospital or shared by all parents in a local community, selecting controls from the same hospital or the same neighborhood would decrease the likelihood of detecting a statistically significant difference between infants with different sleeping habits, thus minimizing the degree of association found. There are a few other difficulties, however, that have caused some to question the actual conclusions of the studies and therefore must be addressed. These are: 1) recall bias; 2) variation in the means of identifying sleeping position; and 3) inconsistency in the degree of adjustment for potential confounders.

Recall bias – There was some question of whether recall bias may have influenced the results of these case-control studies. Before 1991 or so, parents would not have known that the prone position was a risk factor for SIDS and therefore would not have been biased to underreport or overreport.¹¹ However, parental reports of "position found" may be biased by the questioner, and parents may be influenced by traditional advice

recommending the prone position.¹² Others hypothesized that a child's death may cause parents to report events that would be forgotten or unreported by parents of healthy children, so that differences in the accuracy of recall and of reporting would increase the chance that harmless events become identified as risk factors for a disease. To investigate this, parents of SIDS cases and of controls were interviewed, and the reported data were compared to actual data from the medical record. Results showed no difference in the tendency of either group to over- or under-report any of several conditions associated with SIDS and strongly refuted the idea that recall bias could account for the association between prone position and SIDS.¹³

Identification of sleeping position – Sleeping position in each of these studies was identified in one or all of three ways: 1) by the usual sleeping position; 2) by the position in which the infant was last placed; and 3) by the position in which the infant was found dead. Only studies reporting "usual" position consistently define the sleeping position similarly for both cases and controls.¹⁴ Studies utilizing the last two means identify the sleeping position of controls by either: 1) the usual position; 2) the position in which the infant was placed for its previous sleep; or 3) the position in which the infant was found at an assigned time of day. Only methods (2) and (3) provide a comparable means of defining sleeping position for both cases and controls. One early study done in Northern Ireland in 1970 found no significant difference between the usual sleeping position reported by parents and the position in which infants were found dead.¹⁵ However, in one Tasmanian study, the position in which the infant was found dead was more likely to be the last placed position than the usual position.¹⁶

nian study, the usual sleeping position corresponded to the position found in 96% of controls but only 74% of cases, so it is even possible that the infants who died did not actually die in the position assigned to them.¹⁶ Beal and Finch found that odds ratios were larger, in general, for studies based on position found or position last placed,¹⁴ so those considering usual position may tend to underestimate the real risk.¹⁷ The difference, if any, between the various ways of recording sleeping position may account in part for the wide discrepancy in odds ratios and relative risks reported by the various studies. To avoid this uncertainty, the AAP, in making its recommendation against the prone sleeping position, chose to consider only those studies based on usual sleeping position.¹⁸

Adjustment for confounders – One must consider whether one or several confounding variables are creating an apparent association between the prone position and SIDS that is not real. Maternal smoking, lack of breast-feeding, gestational age, birth weight, socioeconomic status, ethnicity and sex are known risk factors for SIDS and therefore potential confounders. In at least two studies, correction for some of these variables actually increased the association rather than diminishing it.^{9,19} Nonetheless, there is still the possibility that prone sleeping is not in itself a risk factor but is actually a marker for some other risk factor that is as yet unknown.²⁰ For example, there may be an unknown condition that predisposes a baby to SIDS and also causes the baby to prefer to sleep in the prone position. This question bears consideration and demands that one consider the plausibility of the

pathophysiologic mechanisms that explain how the prone position may predispose an infant to sudden death. These mechanisms will be discussed later in this article.

In order to derive a useable synthesis of the variety of studies that had been done, Beal and Finch performed a logit estimate of common odds ratio using all studies up to July 1991 whose controls were broadly representative of the population from which cases were selected and for which "usual sleeping position" was available, including studies from Tasmania, New Zealand, Europe and Hong Kong, among others. The calculated common odds ratio was 2.72 (95% CI [2.27-3.26]).¹⁴ It has also been noted that no published report has suggested a decreased incidence of SIDS associated with the prone position.¹⁸ Some still raise the concern that the prone position itself is not a cause of SIDS but rather the factors that determine whether parents place their baby prone are themselves causes of SIDS. Only a prospective randomized trial could completely remove this doubt, but at this point in our knowledge, such a trial would probably be unethical.

Prospective studies

A prospective cohort study has been done in Tasmania that supports the conclusions suggested by the numerous retrospective, case-control studies. This study followed a large cohort of infants judged to be at high risk for SIDS (based on a number of criteria including maternal age, birth weight, season of birth, sex, duration of second stage of labor and breastfeeding), which comprised approximately one-fifth of all births over that period of time.

The incidence of SIDS among the cohort was 7.4 per 1,000 for the cohort compared to 3.5 per 1,000 for the general population.⁵ After controlling for birth weight and maternal age, the odds ratio for the prone position as the "usual" sleeping position was 3.92 (95% CI [1.37-11.24]). The population attributable risk for the prone position was 66% for exposed infants in the cohort and 38% for the entire cohort.¹⁹ Although the applicability to the general population of this study limited to high-risk infants is uncertain, the fact that the association derived from prospective data was similar to that found in the same population using retrospective data adds weight to the conclusions drawn by the retrospective studies.

Interventional studies

In addition to case-control studies and one prospective study, there are also several interventional studies from the Netherlands, England, South Australia and New Zealand, among others, that strongly support the association between the prone sleeping position and SIDS.

The Netherlands – In the Netherlands, the non-prone position for babies was officially recommended in the fall of 1987. The incidence of SIDS at that time was 1-1.5 per 1,000. Prevalence of the prone position fell from 55% to 65% in 1987 to 15% in 1990, and by 1988 the incidence of SIDS had fallen by 37%. This was the first major drop in the incidence of SIDS ever reported in the Western world. There were no reciprocal increases in related causes of death. Whether there were changes in the prevalence of other risk factors is not known except that the prevalence of maternal smoking fell from 58% in 1975 to

Frank Ramsey, M.D., Writing Award winner focuses on SIDS

Catherine M. Bradshaw, M.D., a family practice resident at Cook County Hospital in Chicago, is the 1995 recipient of the Frank B. Ramsey, M.D., Medical Writing Award. Her paper, titled "Sleeping position and sudden infant death syndrome: A review of the literature and the implications for infants in the United States," is published here.

The award honors the memory of Frank B. Ramsey, M.D., who served as editor of *Indiana Medicine* for 41 years and was editor emeritus at the time of his death in 1993. This award, first given in 1994, is presented annually to a student from the Indiana

University School of Medicine. The editorial board of *Indiana Medicine*, in association with the dean's office at the Indiana University School of Medicine, selects an outstanding medical or scientific paper written by a student. The winning paper is published in *Indiana Medicine*, and the author receives \$500.

Dr. Bradshaw, a native of Indianapolis, earned her bachelor's degree at the University of Notre Dame. While attending the IU School of Medicine, she received several honors, including the Marcus Ravdin Medal for the highest scholastic achievement in her graduating class, the John H. Edwards Fellowship, the Distinguished Student/AMA Scholarship and the Department of Family



Dr. Bradshaw

Medicine Award. She graduated from the IU School of Medicine in 1995. □

35% in 1989.²¹

England – In Avon County, England, a public campaign to promote the non-prone position resulted in a change in the prevalence of the prone position from 58% in 1987-89 to 28% in 1990-91. The incidence of SIDS in 1987-89 was 3.5 per 1,000. Based on the previously-calculated relative risk for the prone position, the rate was predicted to fall to 2.0 per 1,000 and actually fell to 1.7 per 1,000.²²

Australia – In South Australia, after media publicity in January of 1988 about the risk of the prone position, there was a 30% decrease in the prevalence of prone sleeping and a 50% decrease in the number of SIDS cases.²³

New Zealand – In 1989, a campaign was initiated in southern New Zealand that advocated

side or back sleeping, smoking cessation, breastfeeding and avoidance of overheating. In New Zealand the population attributable risk for the prone position had been calculated to be 52%. Between 1987 and 1990, the SIDS rate in New Zealand fell from 4 to 3.1 per 1,000, while the prevalence of the prone position fell from 40% to 20.5%. Total infant mortality also fell by 24%, suggesting that the fall in SIDS was not due to a shift in reporting. There was also no change in the prevalence of breastfeeding and only a slight decrease in the prevalence of maternal smoking (from 33.2% to 28.4%).²⁴ In southern New Zealand, the incidence of SIDS dropped from 6.3 per 1,000 in 1979-84 to 2.3 per 1,000 in 1990, while prone sleeping dropped

from 42% to 2.4% and the prevalence of the lateral position increased to 96%. There was no significant change in the prevalence of maternal smoking or of breastfeeding. Of note is the fact that the calculated odds ratio for prone sleeping did not change, even with the large change in the prevalence of the prone position.²⁵

Unconfirmed reports from other countries have also suggested decreases in the incidence of SIDS after publicity about the association between the prone position and SIDS.²⁵ Scotland, however, has had no interventional campaign aimed at discouraging the prone position but has also seen a fall in the incidence of SIDS in recent years, from 2.24 to 1.30 per 1,000 from 1989 to 1991.¹² Some have taken

this as evidence that the decreases in the incidence of SIDS seen above may be secondary to effects other than the decrease in prone sleeping. Indeed, many English health regions have seen a decrease in SIDS without any campaign to discourage the prone position.²⁶ However, it is more likely that media campaigns initiated in one part of England, such as in Avon County, have influenced child care practices in other parts of the United Kingdom. For example, it is known that although the Isle of Mann is a relatively isolated community, the 1991 prevalence of the prone position on the Isle of Mann was identical to that in Avon County in 1991 following the media campaign in Avon.²⁷

A number of factors could confound the results of these interventional studies: overall postneonatal mortality, prevalence of low-birth-weight infants, extent of prenatal drug exposure, incidence of respiratory tract infections, extent of anemia and smoking during pregnancy, increases in unreported infant mortality, diagnostic transfers and changes in coding practices for death certificates.²⁸ Since different groups of parents take up new child rearing habits at different rates, it may also be possible that there is a greater conversion rate to the supine position in infants at a lower intrinsic risk for SIDS, leaving the prone group with a preponderance of high-risk infants. Lower-income, less educated parents, whose babies are known to be at higher risk for SIDS, may be slow to adopt new recommendations for non-prone sleeping.³

Because of these uncertainties, a committee of experts met in Bethesda, Md., in January 1994 to

evaluate the trends in postneonatal mortality and SIDS from 1980-1992 for Australia, Britain, New Zealand, the Netherlands, Norway, Sweden and the United States. This committee came to several conclusions: 1) In all countries in which the prevalence of the prone position had decreased rapidly, the incidence of SIDS decreased approximately 50%. 2) This decrease was not due to a change in reporting, since there were no reciprocal increases in other causes of death. 3) These low SIDS rates have been sustained as long as two to three years so far in New Zealand, Avon and Tasmania. 4) There has been no significant change in the prevalence of maternal smoking or of breast-feeding in these countries, even though these behaviors were also targeted by some of the interventional campaigns. 5) There have been so far no reported adverse effects of either the side or supine position in these countries.¹

The lateral position and biological gradient

A.B. Hill described eight criteria by which a factor could be identified as a causative agent in a disease process. One of these criteria was biological gradient, or the observation that the degree of exposure to the factor influences the degree of disease seen.²⁹ This phenomenon can be seen with regard to the prone position and SIDS in at least two different ways. A study in the Netherlands in 1991 calculated that the relative risk of a baby "sometimes" being placed prone was less than that of "always" being placed prone (odds ratios 2.2 and 4.6, respectively).³⁰ In addition, the lateral sleeping position and its relationship to SIDS also support the idea of biological gradient.

The lateral position has been found to be unstable for babies in the SIDS age range. In one study, half of 104 12-week-old infants placed on their sides turned supine by morning.²⁵ In another survey of 406 infants age 2 weeks to 8 months, 65% of infants placed on their side were found supine and 4% were found prone.³¹ Investigators in Avon County, England, estimated that up to 40% of infants put on their sides will roll to a different position, most to front and <1% to back.²² A U.S. survey of 2- to 4-month-old infants showed that 50% of those placed on their side would roll to the back and 10% to the stomach.¹ Clearly, the lateral position can be thought of as an intermediate between the prone and the supine position. Accordingly, the lateral position is associated with a risk of SIDS that falls between that of the other positions. In a New Zealand study, the lateral position increased the risk approximately two-fold, while the prone position increased the risk by about 7.^{11,32} In a South Australian study, of the 20 SIDS cases that had been last placed on their sides, 14 were found prone. Similar observations have reportedly been made in New Zealand and in England.²⁵ The lateral position, in other words, may carry risk because of the small chance that the infant will roll to the prone position.

Biological plausibility

Another of Hill's criteria for causation is biological plausibility.²⁹ In order for the prone position to be a causative factor in the etiology of SIDS and not merely a marker for another factor, there must be a reasonable pathophysiologic mechanism to explain the relationship between

the prone position and SIDS. Although no studies have clearly established a mechanism, postulated mechanisms include: airway obstruction, rebreathing of expired carbon dioxide, overheating, neck extension causing compression of cerebral vessels, decreased abdominal movement with respiration causing splinting of the diaphragm and decreased cardiac filling due to pressure on the thymus.^{18,20,31} There are complex interactions between temperature regulation, respiratory patterns, chemoreceptor sensitivity and cardiac control, so an infant who inadvertently became face down while sleeping might suffocate if, for some reason, responsiveness to hypercarbia or hypoxia was deficient or gasping and arousal reflexes were too weak to re-establish

air flow.¹⁸ One author has even suggested that the prone position, by stimulating the upper airway or by nasal occlusion, triggers the dive reflex, which results in profound bradycardia and redistribution of blood flow to the lungs, brain and heart, leading to progressive hypoxia.³²

That SIDS usually occurs in infants younger than six months (the age at which infants are able to roll over on their own) is consistent with the association between the prone position and SIDS. In the Netherlands, the fall in SIDS incidence after the interventional campaign was more marked for infants less than six months.³³ Inconsistent with this is the low incidence of SIDS in the

first month of life, but this could be explained by other mechanisms such as a more effective gasp reflex in newborns¹⁵ or the inability of the neonate to raise its head and place it face down.²⁵

The following is a brief review of the three of the most investigated mechanisms by which the prone position might predispose to SIDS:

Airway obstruction – Two studies, one of 64 infants with a history of apnea³⁴ and one of 80 healthy 3-month-old infants³⁵ found that sleeping position did not significantly affect the rate or duration of central or obstructive

Unfortunately, there are not much data on whether prone infants who die of SIDS are actually found face down, since most studies do not distinguish between face-down and face-side.²⁸

apnea. These studies, however, have been challenged because they looked at only a small number of infants for only one night. During agonal gasping, such as after a prolonged episode of apnea, accessory muscles are used which tend to straighten the head, putting the prone infant face down and in a position to suffocate.¹⁵ Unfortunately, there are not much data on whether prone infants who die of SIDS are actually found face down, since most studies do not distinguish between face-down and face-side.²⁸

Rebreathing of expired carbon dioxide – This hypothesis has some support from experiments using rabbit and mechanical models,^{36,37} but a study of live

infants found that infants sleeping prone do not develop lower transcutaneous carbon dioxide levels than infants sleeping supine.³⁸

Hyperthermia – The overheating hypothesis has received much attention. A theoretical model that determined thermal balance in infants found that the head is the most important site of heat loss in the infant and that heat loss is diminished by turning the head face down. This study also found that the prone position decreases heat loss by increasing contact between the body surface and the underbedding, an effect that is increased with softer underbedding. They suggested that hyperthermia could result from a combination of increased metabolic rate and decreased heat loss, and that absolute or

relative hyperthermia could explain many cases of SIDS, including why SIDS is so common in southern New Zealand (heavy dressing, prone position, soft bedding), so uncommon in Hong Kong (some heavy dressing, supine position), and so uncommon in Scandinavia (prone position but light dressing due to central heating). Cultural combinations of sleep position, clothing, bedding and central heating could explain why SIDS rates are so different in different countries.³⁹ At least two case-control studies have found that overheating and the prone position are independently associated with an increased risk of SIDS.^{6,40} To date, very few studies have actually measured

body temperature and environmental temperature in investigating cases of SIDS.²⁸

There are several postulated mechanisms for SIDS that go against its association with the prone position. Some of the pathophysiologic mechanisms believed to contribute to SIDS, such as apnea, hypoxemia and gastroesophageal reflux, have been shown by some studies to occur less frequently in the prone position.¹⁶ Reports from New Zealand and the United States have suggested that SIDS might be caused by a defect in the control of airway muscles, which would be amplified in the supine position. The supine position may also be more likely to cause neck flexion, which increases upper airway resistance²⁸ and increases the susceptibility of the airway to collapse.⁴¹ In

addition, the effect of gravity on the tongue in the supine position would require more genioglossus tone to maintain airway patency, which may be dangerous in those infants whose decreased neuromuscular control puts them at risk for suffocation and asphyxia in the face down position. The supine position has also been suspected to cause an increased risk of adverse responses to pooled secretions in the posterior pharynx, such as obstruction, secondary apnea and aspiration.²⁸

Effect modifiers and relevance of these findings to the United States
A matched analysis on data from Tasmania (80 cases and 333

controls) using the multiplicative model of interaction found that the association between the prone position and SIDS was increased by natural fiber mattresses (which are softer than other mattresses), swaddling, heated rooms and recent illness, although the effects of natural fiber mattresses and swaddling were only of borderline significance ($p=.05$ and $p=.09$, respectively). By themselves, natural fiber mattresses, swaddling, recent illness or heated rooms did not cause a significantly increased risk of SIDS. (Odds ratios ranged from 1.1 to 1.6 for these factors.) Since the presence of

in different countries. Since the combination of effect modifiers prevalent in the United States is different from that of other countries, it is unclear how much risk will be associated with prone sleeping in the United States. According to the only large case-control study of SIDS done in the United States, the odds ratio for the prone position here is only 1.3,⁴³ much lower than that found in other countries.

Soft bedding and overheating are the two factors most often quoted as mediating the association between the prone position and SIDS. These mediators are especially relevant to those who doubt the importance of the prone position as a cause of SIDS in the United States, since most babies in the United States sleep on firm, synthetic mattresses dressed appropriately for warm

Since the presence of recent illness and heated rooms vary seasonally, these effect modifiers may explain why a decrease in prone sleeping causes a greater decrease in SIDS in the winter months as compared to the summer months.⁴²

recent illness and heated rooms vary seasonally, these effect modifiers may explain why a decrease in prone sleeping causes a greater decrease in SIDS in the winter months as compared to the summer months.⁴² Although the significance of these findings has been questioned because the large number of potential effect modifiers that were tested results in a large risk for an alpha error,¹⁶ this study makes an important point: the strength of the association of the prone position and SIDS is at least partially dependent upon other factors. Differences in the prevalence of these or other effect modifiers may explain the variation among odds ratios measured

temperatures in houses with central heating. The data concerning each of these factors are discussed below:

Soft bedding – Some feel that the association between the prone position and SIDS would not exist in the absence of soft bedding. Half of the SIDS cases studied in southern New Zealand (odds ratio 5.74) were sleeping on sheepskins, and the other half probably slept on soft "woolen mattresses."⁴⁴ However, in Avon County, England (relative risk 8.8), very few infants were sleeping on soft bedding.¹⁷

Overheating – Others have suggested that the association between the prone position and

SIDS is dependent upon overwrapping and overheating. Indeed, most of the data showing a strong association between the prone position and SIDS comes from countries where the prevalence of central heating is limited and where babies are put to sleep with lots of bundling and bedding. These countries, even with their lower prevalence of prone sleeping, have a much higher incidence of SIDS than the United States (In southern New Zealand, the incidence is 6 to 7 per 1,000 with 40% prone, versus 1 to 2 per 1,000 in the United States with 70% to 80% sleeping prone).¹⁵ In Australia, where most households do not have central heating, the incidence of SIDS is higher during the colder months: In Tasmania, the winter-time incidence of SIDS is 6.3 per 1,000. In South Australia, the incidence is 4.2 per 1,000 in July and 0.7 per 1,000 in January. It is reasonable to assume that the prevalence of prone sleeping is the same in both summer and winter. In Sweden, where virtually all infants sleep in heated rooms with clothing and bedding appropriate for warm temperatures, there is less seasonal variation in SIDS.⁴⁶ Analysis of the trends of SIDS incidence in New Zealand, Australia, England and Wales has shown that, with a decrease in prone sleeping, the larger decrease in SIDS is occurring during winter months. What used to be a three-fold peak of SIDS in winter in these countries has now decreased to only 1.3-fold.¹ One might conclude from this that only those babies living in temperate climates without central heating need to avoid the prone position for sleep.²³ However, in Avon County, England (relative risk 8.8), over 80% of households have central heating.¹⁷

Some feel that the drop in SIDS seen in other countries will not be transferable to countries like the United States with lower initial rates. The incidence of SIDS in the United States is only 1.5 per 1,000, much lower than the 3.5 to 5.5 per 1,000 in England, Tasmania and New Zealand. However, according to the meeting of experts held in January 1994, the SIDS rates in some of the countries appear to be falling to levels below the U.S. rate. The provisional rates in Australia and Britain for 1992 were 1.1 and 0.7 per 1,000, respectively, down from 1.8 and 1.7 per 1,000 in 1988. The decreases in the prevalence of prone sleeping in these two countries were 31% to 3% and 59% to 2%, respectively.¹

Drawbacks to recommending the non-prone position

The objective of this paper was to consider whether the evidence for the association between the prone sleeping position and SIDS is strong enough to merit a change in U.S. child care practices. What constitutes "strong enough" depends a great deal on the number of drawbacks inherent in making such a change. These drawbacks would include: 1) loss of inherent advantages to the prone position; 2) risks associated with the supine position; 3) difficulty with identifying those who should be exempted from such a recommendation; and 4) parental difficulty with following the recommendation.

Advantages to the prone position – The prone position, for one, is well known to decrease the incidence and degree of gastroesophageal reflux in infants. The American Academy of Pediatrics acknowledged this effect and exempted infants with known gastroesophageal reflux from their

recommendation. The prone position has also been reported to improve pulmonary function in premature infants, but reports are contradictory with regard to full-term infants. Orthopaedic advantages to the prone position include prevention of scoliosis and possible prevention of restricted hip abduction. Prone as an awake position has been reported to improve motor development, but it is unknown whether the prone sleep position has this same effect.³

In spite of this, it seems that internationally the supine position is the most common position chosen by parents.¹⁷ In 1990, the French language expert group for the study of SIDS concluded that there is "no physiologic justification" for using the prone sleeping position in normal infants.²⁵ In addition, the American Academy of Pediatrics, in making its 1992 recommendation of the non-prone position, stated that "no convincing long-term beneficial effects or positive influences on decreasing mortality have ever been shown for the prone position in the populations studied."¹⁸

Risks associated with the supine position – Contrary to popular belief, there is no evidence that aspiration is a more frequent complication in healthy infants lying supine compared to other positions. In countries where babies are routinely placed supine, SIDS and aspiration are both rare.¹⁰ According to the meeting of experts in January 1994, countries with recent decreases in the prevalence of the prone position are not showing any adverse effects of supine sleeping, such as an increase in deaths due to aspiration or in apparent life-threatening events (ALTEs).¹ In the Netherlands, widespread adoption of the supine position in 1988 was

followed by a decrease rather than an increase in the incidence of lethal aspiration.¹⁵ In Avon from 1984-91, the only lethal episodes of aspiration after the newborn period occurred in three neurologically impaired infants, all of whom were prone at the time.¹⁷ From January 1985 to August 1989 in Adelaide, South Australia, only three infants who were found dead unexpectedly had died of aspiration, and all of these, too, were found prone. In fact, death from inhalation in the supine position is virtually unknown in the literature.⁴⁶

Some have challenged that the absence of fatal aspiration is a very insensitive way of quantifying the potential hazards of supine sleeping, since clinical experience suggests that supine sleeping does indeed cause increased morbidity in infants susceptible to regurgitation. These authors suggest that supine sleeping may be causing increased morbidity forms that investigators are not identifying in the countries where studies are being done. However, latest results from two ongoing prospective studies in Avon County and Tasmania have shown no increase in doctor visits or reported episodes of illness for infants sleeping on their sides or backs as compared with infants sleeping on their stomachs before the start of the interventional campaign.¹

Difficulty with the exemption of infants with gastroesophageal reflux – Although the AAP recommendation exempts infants with gastroesophageal reflux, it may be difficult to identify those infants. It is known that infants with apparent life-threatening events (ALTEs) secondary to regurgitation tend to have a greater degree of reflux during sleep than do infants with

regurgitation without ALTEs. In fact, these infants may not have postprandial reflux at all and therefore may not be identified as having reflux until it is too late. Because of this, symptomatic reflux may not be a sensitive enough indicator to detect those infants who should sleep prone.⁴⁵

At the other end of the spectrum, because regurgitation is so common among infants, it will be hard to know which cases of known regurgitation merit further workup to determine which should be excused from the AAP recommendation.⁴⁵ This dilemma will necessitate a greater extent (and greater cost) of evaluation for reflux disease. Depending on the definition of "significant" reflux, the majority of infants could conceivably be identified as having gastroesophageal reflux disease.²⁸ In one clinician's experience, patients describe regurgitation as a "problem" in 20% of "well" babies. According to this clinician, 7% of all infants will at some point see a physician for symptomatic reflux, 20% of these will undergo diagnostic testing, and one in 200 infants will require antireflux surgery. In low-birthweight infants, symptomatic reflux is even more common, with 3% to 10% of these having reflux-associated apnea, bradycardia or worsening of bronchopulmonary dysplasia.⁴⁷

In truth, very little information is available on the potential adverse effects of the supine position. As the prevalence of supine sleeping increases following the AAP recommendation, physicians will have to watch for changes in such parameters as the incidence of illness, especially lower respiratory tract infections, and the frequency of complications of gastroesophageal reflux disease

such as failure to thrive and aspiration pneumonia.¹⁷ In some babies it may turn out that the risks of prone sleeping are counterbalanced by the risks of supine sleeping.

Parental difficulty with the non-prone position – Another potential negative effect of the AAP recommendation to avoid the prone position is the likelihood that parents may have difficulty implementing the recommendation. One study of 80 healthy 3-month-old infants found that the supine sleeping position was associated with a decrease in sleep duration and an increase in the number and duration of arousals, regardless of whether the infant was used to the prone or the supine position.³⁵ A 1960 study of 281 infants found that newborns in the supine position had more diaper rashes, more self-inflicted excoriation and more frequent crying. More than half of babies laying supine stopped crying when turned prone, but rarely did a prone baby stop crying when turned supine.⁴⁸ It is true that some babies seem naturally to prefer to sleep prone, and babies who will not stop crying or will not fall asleep in the supine position will be a problem for their families. Inevitably, the AAP recommendation will cause additional stress and anxiety for some parents.¹²

Conclusion

What has happened in the United States since the American Academy of Pediatrics made its official recommendation in 1992 of the non-prone position for healthy babies? As of January 1994, the prevalence of the prone position in the United States has dropped from 73% to 56%. In those states from which data on sleeping

position are available, no consistent pattern of change in SIDS rates has been seen. Some states have had no change and some have even reported an increase in SIDS despite a decrease in the prevalence of the prone position. However, King County, Wash., recorded a 52% decrease in SIDS from 1991 to 1992, which may be attributable to a newspaper editorial advocating non-prone sleeping. Unfortunately, the prevalence of the prone position in King County in 1991 and 1992 are not known. According to this same source, preliminary reports suggest that the incidence of SIDS in the United States may have decreased approximately 12% when comparing spring and summer months before and after the AAP recommendation.⁴⁹ All in all, that the United States has not seen anywhere near the 50% decreases in SIDS reported by other countries is very likely due to the fact that the prevalence of prone sleeping here has not decreased very much here in the last two years.

Considering all of the data recounted above, it is safe to conclude that the prone position is

indeed a preventable factor in a long, complicated, enigmatic sequence of events that leads to sudden infant death. How much of a factor it plays in SIDS in the United States is still unknown, given the limited and inconclusive data available on the contributions of cultural factors such as soft bedding and central heating. However, the prone position is probably a significant enough factor to justify an intervention as simple as recommending the non-prone position for healthy babies. Case control studies are now being conducted in California, King County, Wash., Chicago and the Aberdeen Area of the Indian Health Service.¹

Until data are available from these studies, I believe the best course of action is to recommend the supine or lateral sleeping position for healthy babies but still include reassurances for parents who have difficulty following the recommendation. In explaining the risks of prone sleeping to parents, we should emphasize that the risk for SIDS is low for most babies, regardless of sleeping position, and that this risk is only slightly increased by the prone position.

All babies with significant reflux disease should be readily excused from the recommendation, and we must be careful to avoid giving parents the impression that their babies are falling "out of the frying pan and into the fire." For healthy babies, the supine position should be the first choice, but the lateral position is an ideal option for infants with mild or unconfirmed gastroesophageal reflux or those who do not sleep well in the supine position. If a baby does not sleep well in either the lateral or the supine position, the prone position is still a reasonable option to prevent undue stress and sleep deprivation for the family. We should avoid attributing more risk to the prone position than is actually there, but we cannot delay taking advantage of this new information that may help to save some babies' lives. □

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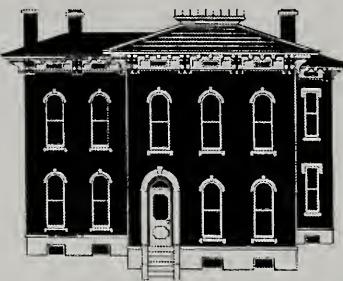
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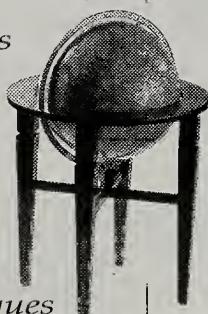
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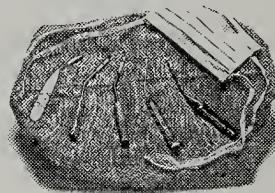


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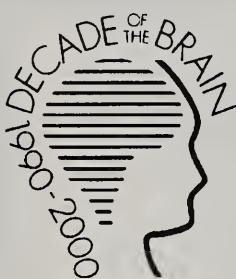
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■alliance report

Valerie Gates
ISMA Alliance president

The ISMA Alliance annual convention was well attended by delegates representing 20 of our 24 organized counties. Twelve past ISMA Alliance presidents also attended. Activities for the convention included a luncheon ceremony to remember those Alliance members who had died during the past year, a workshop on grief with Dr. Clifford Kuhn, installation of the new officers, remarks by Sharon Scott, AMA Alliance

president, a time to share ideas for membership, incoming and outgoing board meetings and the presentation by the county presidents of their county alliance programs and projects.

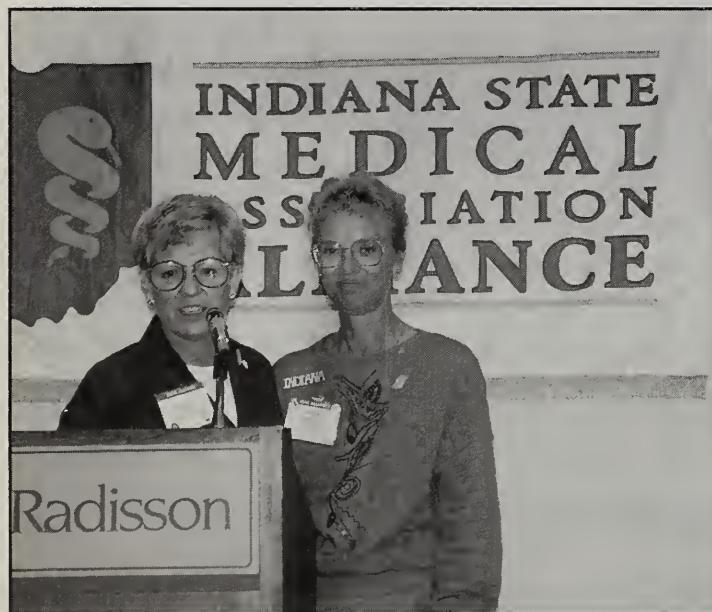
The hospitality room highlighted state and county alliance projects and programs. An AMA-ERF silent auction was held. The ISMA Alliance welcomed all society members to view the displays.

ISMA Alliance members would like to thank the ISMA and staff for all of their support. We are encouraged when we see all that

has been accomplished for our physician families this year.

Alliance members are preparing a Medicine Day program and a Support Focus Workshop for the spring meeting. We plan to have all legislative phone trees active during the legislative session. We appreciate the updates from the staff of the ISMA Government Relations Department. The more informed we become, the more help we can provide our membership.

We look forward to our continued working relationship. □



Ann Wrenn, AMA Alliance secretary, of Bloomington, and Valerie Gates, ISMA Alliance president, of Valparaiso prepare to install next year's officers.

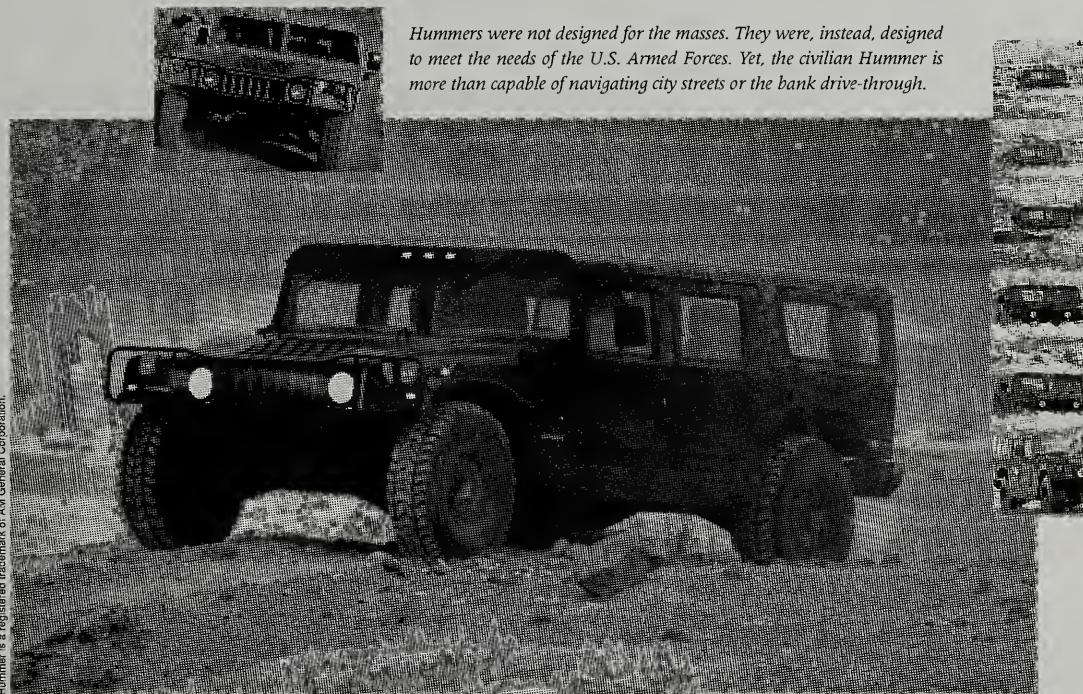


From left – Phyllis Walker, Bloomington; Laurel Weddle, Columbus; Fran Foster, Fort Wayne; Cheryl Haslitt, Muncie; Patty Lackey, Evansville; and Ann Wrenn, Bloomington, during the installation of officers.

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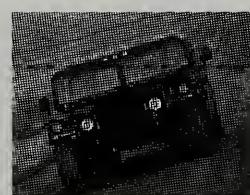
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Reid Hospital and Health Care Services in Richmond will present an evening seminar on "Occupational Health" Feb. 20.

For additional information, call Marie Hopper at (317) 983-3112.

St. Mary's Medical Center

St. Mary's Medical Center in Evansville will present the Annual G.I. Seminar on "Motility Disorders" Feb. 29 at 1 p.m.

For registration information, call (812) 485-4468.

St. Vincent Hospitals

St. Vincent Hospital and Health Services in Indianapolis will present these CME courses:

Mar. 15 - Emergency Room Physicians Seminar, location to be announced, Indianapolis.

Apr. 27-28 - 14th Annual Spring Seminar in Dermatopathology - "Compare Your Diagnoses with Bernie's," St. Vincent Hospital Cooling Auditorium, Indianapolis.

May 10 - Progress in Cardiology IX, Westin Hotel, Indianapolis.

For more information, call Beth Hartauer, (317) 338-3460.

Indiana University

The Indiana University School of Medicine will present the following CME courses:

Feb. 16 - Violence and Mental Illness.

Feb. 24-25 - Indiana Society of Anesthesiologists.

Mar. 1 - Prescription Writing and Controlled Substances.

Mar. 2 - Introduction to Neuropathology.

Mar. 15-16 - Thoracoscopy Workshop for Pulmonary Physicians, Indiana University School of Medicine Library, Indianapolis.

Apr. 13-14 - Dermatopathology.

Apr. 29 - 20th Annual del Regato Lecture.

May 10 - Hemostasis in Cardiothoracic Surgery.

May 17 - New Horizons in Medicine.

June 6-7 - ASCO.

All courses will be presented at the University Place Conference Center and Hotel in Indianapolis unless otherwise noted. For more information, call (317) 274-8353.

Washington University

Washington University School of Medicine will present these CME courses:

Mar. 13-15 - Annual Refresher Course and Update in General Surgery.

Mar. 21-22 - Clinical Pulmonary Update.

Mar. 30 - Cardiopulmonary Bypass & Coagulation Deficiencies for Surgeons.

All courses will be held at the Washington University Medical Center in St. Louis. For more information, call 1-800-325-9862.

University of Michigan

The University of Michigan Medical School will sponsor these CME courses:

Feb. 25 - Radiology in the

Mountains, Snowmass, Colo.

Feb. 28-Mar. 2 - Advances in the Management of Infectious Diseases: Winter Update, South Seas Plantation, Captiva Island, Fla.

Mar. 6 - Rapid Response to Myocardial Infarction, Laurel Manor Conference Center, Livonia, Mich.

Mar. 10-14 - Radiology in the Desert - Practical Aspects of Radiology and Imaging, Marriott's Camelback Inn Resort, Golf Club & Spa, Scottsdale, Ariz.

Mar. 12-16 - Family Practice 1996: 20th Annual Spring Review Course, Towsley Center, Ann Arbor, Mich.

Mar. 22 - Applied Clinical Informatics Symposium: Topics on Information Systems of Immediate Importance for the Practicing Clinician, Towsley Center, Ann Arbor, Mich.

Mar. 28-29 - Challenges and Changes in Obstetrics and Gynecology, Towsley Center, Ann Arbor, Mich.

Mar. 30 - Transvaginal Ultrasound Workshop, Towsley Center, Ann Arbor, Mich.

To register, call Vivian Woods at (313) 763-1400. □

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Three Indiana hospitals listed among top 100

Wishard Memorial Hospital in Indianapolis, St. Mary's Medical Center in Evansville and Deaconess Hospital in Evansville were judged among the country's best hospitals at delivering clinical care while making a profit, according to a recent analysis of nearly 4,000 acute care hospitals.

Modern Healthcare, a healthcare business news weekly magazine, announced the results of the study, which listed 100 hospitals judged on financial management, operations and clinical outcomes. The analysis was done by HCIA, a Baltimore-based healthcare information company, and Mercer, a New York-based human resources management consulting firm.

Wishard made the list for the third straight year and St. Mary's for the second time. This was the first time Deaconess was listed.

Free telephone service offers HIV information

HIV/AIDS Treatment Information Service (ATIS) is a free telephone reference service for health care providers and people living with HIV disease. Reference specialists answer questions about the latest treatment options, provide customized database searches and link callers to other HIV/AIDS information resources.

Through the service, callers can acquire copies of the latest federally approved treatment guidelines including:

- Recommendations for HIV Counseling and Voluntary Testing for Pregnant Women.
- Guidelines for the Prevention

of Opportunistic Infections in Persons Infected with HIV.

- Study results concerning the Anti-HIV Therapy which Lowers Risk of AIDS, Death in Patients with Intermediate-Stage HIV Disease.

The treatment service recently developed the Glossary of HIV-AIDS-Related Terms to help people understand the technical terms related to HIV, its associated treatments and the medical management of related conditions.

The information service is offered through the CDC National AIDS Clearinghouse.

To receive a free copy of the glossary or obtain other information, call 1-800-HIV-0440 or send an e-mail to atis@cdcnac.aspensys.com.

Indiana Hand Center to develop network

The Indiana Hand Center, based in Indianapolis, has finalized an agreement with VIVRA, a national specialty health care company, to develop VIVRA-Orthopaedics, an orthopaedic specialist network.

VIVRA-Orthopaedics will focus on the development of networks of orthopaedists to establish provider-payer relationships for specialist care. The premise is to proactively present comprehensive orthopaedic management services to health insurance and workers' compensation payers and primary care physicians with risk contracts or gatekeeper responsibilities.

Hospital and health care mergers, affiliations

This list briefly summarizes recent news of mergers, acquisitions and affiliations of hospitals and other medical institutions. The information is reprinted from *Indiana Economic Log* with permission of NBD Bank, which compiles the list from newspaper stories.

- Healthcare Specialists of North Central Indiana is a new alliance of 30 physicians formed in Lafayette. Its primary goal is to provide statistics for doctors' contracts with insurance companies, and its secondary purpose is to assist new doctors coming into the area.
- Hobart-based Ancilla Systems plans to consolidate its Michiana Community Hospital in South Bend and its St. Joseph Hospital in Mishawaka and rename them St. Mary Community Hospital in South Bend and St. Joseph Community Hospital in Mishawaka. Ancilla Systems is creating a new regional health care organization called Ancilla Health Care, which includes the two hospitals; Edison Lakes Medical Center, Linden Vale Hospital and Healthy Family Center in Mishawaka; and 23 Medical Park Plaza and Pregnancy Clinic of Urbancare in South Bend.
- Wabash County Hospital has discontinued its previously announced plans to affiliate with the regional health care system that Parkview Memorial Hospital in Fort Wayne is attempting to establish with outlying community hospitals. □

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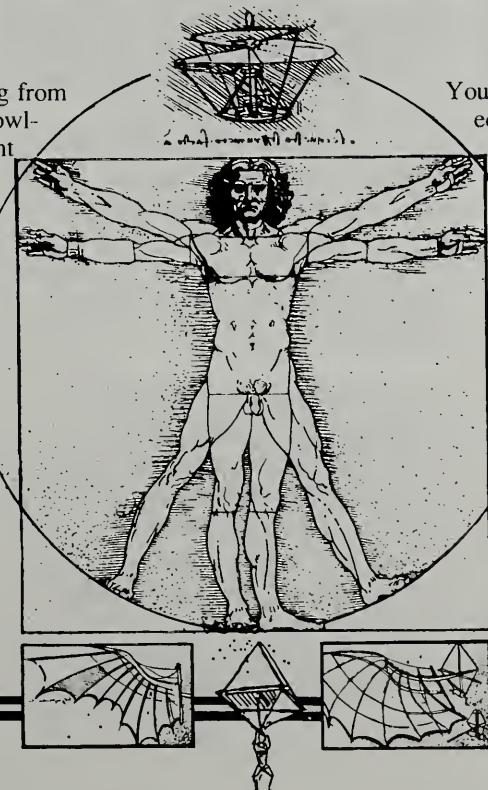
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AIM HIGH



■ obituaries

David H. Brewer, M.D.

Dr. Brewer, 64, former Taylor University Health Center physician, died Oct. 6, 1995, at his home in Hartford City.

He was a 1965 graduate of the University of Michigan Medical School.

Dr. Brewer established a general practice in Hartford City and Upland in 1987 and was on staff at the Blackford County Hospital. He was the Taylor University Health Center physician from 1988 to 1993. An ordained United Methodist minister, Dr. Brewer had served as a medical missionary in Nigeria and Haiti.

Clyde G. Culbertson, M.D.

Dr. Culbertson, 89, a medical researcher, educator and philanthropist, died Sept. 27, 1995, at the Four Seasons Health Care Center in Columbus, Ind.

He was a 1931 graduate of the Indiana University School of Medicine.

Dr. Culbertson had been professor and chair of the Department of Clinical Pathology at the IU Medical Center, director of the laboratory of hygiene at the Indiana State Board of Health, a founder and director of the Indianapolis American Red Cross Blood Donor Center and director of biological research at Eli Lilly & Co. He was instrumental in commercial development of the Salk polio vaccine, a safer rabies vaccine and the antibiotic erythromycin. He discovered that free living amebae could infect the brains of experimental animals and humans. One species of these amebae, *Acanthamoeba culbertsoni*, was named in his honor. After retiring from Lilly in 1970, he

continued research on free living amebae in a Lilly laboratory in Wishard Hospital in Indianapolis and in a laboratory in his Nashville, Ind., home. He endowed the Culbertson Chair of Pathology Education in the IU School of Medicine to strengthen the education of medical students and provided leadership support for another endowed chair. Dr. Culbertson was a founding fellow of the College of American Pathologists and served as president of the American Society of Clinical Pathologists.

Bernard E. Edwards, M.D.

Dr. Edwards, 81, a South Bend anesthesiologist, died Oct. 21, 1995, at St. Joseph's Medical Center in South Bend.

He was a 1941 graduate of the Loma Linda University School of Medicine.

Dr. Edwards was a member of the American Society of Anesthesiologists, the International Anesthesia Research Society, the American and Midwest pain societies, the American Academy of Pain Medicine and the American Academy of Pain Management. He was a founding member of the International Association for the Study of Pain and a past president of the Indiana Academy of General Practice.

Harley F. Flannigan, M.D.

Dr. Flannigan, 86, a retired LaGrange family physician, died Oct. 19, 1995, at Parkview Memorial Hospital in Fort Wayne.

He was a 1931 graduate of the University of Tennessee Center for Health Sciences.

Dr. Flannigan moved to LaGrange from Hobart in 1937.

Emory D. Hamilton, M.D.

Dr. Hamilton, 81, a Fort Wayne anesthesiologist, died Oct. 5, 1995, at Woodview Health Care in Fort Wayne.

He was a 1940 graduate of the Indiana University School of Medicine and an Army veteran of World War II.

Dr. Hamilton had served as president of the St. Joseph Medical Center staff and of the Indiana Society of Anesthesiologists. He retired in 1982.

Maurice Kaufman, M.D.

Dr. Kaufman, 77, an Indianapolis internist, died Sept. 20, 1995.

He was a 1943 graduate of the Johns Hopkins University School of Medicine and served as a captain in the Army Medical Corps from 1944 to 1946.

Dr. Kaufman was in private practice in Bridgeport, Conn., from 1948 to 1975 and served as medical director at Community Health Plan in Bridgeport. He was an instructor at Yale University School of Medicine and then served as an assistant professor at the Indiana University School of Medicine from 1977 until his death. He had been affiliated with Wishard Memorial, Methodist, Winona Memorial and Community hospitals in Indianapolis. Dr. Kaufman was medical director at Metro Health Plan in Indianapolis from 1976 to 1989, when he retired. He was a member of the board and president of the Central Indiana Council on Aging from 1977 until his death. He received the 1989 George Davis Award of the Interfaith Fellowship on Religion and Aging for noteworthy support and advocacy of programs designed to meet the needs of older persons.

■ obituaries

Larry P. Kays, M.D.

Dr. Kays, 52, an Evansville neurologist, died Nov. 10, 1995. He previously lived in Indianapolis.

He was a 1968 graduate of the Indiana University School of Medicine and a Navy veteran of the Vietnam War.

Dr. Kays was on the staff at St. Mary's Medical Center and Deaconess Hospital in Evansville.

Stewart B. Kephart, M.D.

Dr. Kephart, 78, a Bluffton obstetrician/gynecologist, died Oct. 15, 1995.

He was a 1943 graduate of the University of Pennsylvania School of Medicine and an Army veteran of World War II.

Dr. Kephart was on the staff of the Caylor-Nickel Medical Center in Bluffton from 1951 to 1989. He founded the clinic's department of obstetrics and gynecology, which he chaired for 38 years. He was a fellow of the American Board of Obstetricians and Gynecologists and a fellow of the International College of Surgeons. He had served as president of the Indiana Society of Obstetricians and Gynecologists and as past director emeritus of the Indiana Division of the American Cancer Society. He was a member of the American Association for Maternal and Infant Health, the American Fertility Society and the American Geriatrics Society.

Ivan T. Lindgren, M.D.

Dr. Lindgren, 63, an Aurora family physician, died Nov. 8, 1995, at his home.

He was a 1957 graduate of the University of Illinois College of Medicine and served in the U.S. Air Force from 1959 to 1961.

Dr. Lindgren, who had a practice in Aurora for 25 years,

served as the Dearborn County health officer since 1971. He was medical director at many area nursing homes and performed all the physical exams for South Dearborn Pee Wee Football. Dr. Lindgren had been a physician with the student health service at Miami University in Oxford, Ohio, and was director of clinical development at Hoechst Pharmaceutical Co. in Cincinnati.

Georgianna Lutz, M.D.

Dr. Lutz, 97, a Hobart family physician, died Oct. 16, 1995, at Lincolnshire Health Center in Merrillville.

She was a 1924 graduate of the General Medical College in Chicago, Ill.

Dr. Lutz was a Gary area physician for 67 years and was a staff member of Ameritus at St. Mary Medical Center and Methodist Hospitals in Lake County. She was a member of member of the American Academy of Family Physicians and the American Medical Women's Association.

George B. McAleese, M.D.

Dr. McAleese, 72, a retired Terre Haute surgeon, died Sept. 9, 1995, at St. Francis Hospital in Indianapolis.

He was a 1946 graduate of the University of Pittsburgh School of Medicine.

Dr. McAleese was affiliated with Union and Regional hospitals in Terre Haute and had been on staff at the student health center at Indiana State University.

Linus J. Minick, M.D.

Dr. Minick, 74, a Churubusco family physician, died Nov. 3, 1995, at St. Joseph Medical Center in Fort Wayne.

He was a 1951 graduate of the

Indiana University School of Medicine and an Army veteran of World War II.

Dr. Minick practiced in Churubusco from 1952 to 1993. He had served as president of the St. Joseph Medical Center staff and as an assistant clinical professor in Indiana University's Department of Family Practice. He was a diplomate of the American Academy of Family Physicians.

Adolph C. Predd, M.D.

Dr. Predd, 88, a retired LaPorte family physician and surgeon, died Aug. 29, 1995, at LaPorte Hospital.

He was a 1936 graduate of the Loyola University Stritch School of Medicine.

Dr. Predd was in practice for more than 50 years, retiring in 1985. He was a past president of the LaPorte County Medical Society and was affiliated with LaPorte, Holy Family and Fairview hospitals.

William J. Stangle, M.D.

Dr. Stangle, 89, a Bloomington radiologist, died Oct. 17, 1995.

He was a 1931 graduate of the Indiana University School of Medicine and a Navy veteran of World War II.

Dr. Stangle was the founder of Southern Indiana Radiological Associates. He served on the staffs of Bloomington Hospital and Dunn Memorial Hospital in Bedford and was a member of the board of directors of Blue Cross and Blue Shield of Indiana.

John R. Van Kirk, M.D.

Dr. Van Kirk, 75, a West Lafayette family physician, died Nov. 3, 1995, at his home.

He was a 1944 graduate of the Indiana University School of

■ obituaries

Medicine and a U.S. Army veteran.

Dr. Van Kirk had practiced in West Lafayette since 1961 and previously practiced in Burlington. He had served as regional medical director for the Lake Central office of State Farm Insurance Co., medical examiner at the Indiana Veterans Home, medical director of Tecumseh Area Planned Parent-

hood and city health officer for West Lafayette.

Roland E. Weitzel, M.D.

Dr. Weitzel, 78, a retired family physician and surgeon in Princeton, died Oct. 15, 1995, at Gibson General Hospital.

He was a 1943 graduate of Hahnemann University School of

Medicine and a U.S. Army Medical Corps veteran of World War II.

Dr. Weitzel had practiced in Princeton for 35 years and served as chief of the medical staff at Gibson General Hospital. He was a member of the American Academy of Abdominal Surgeons and the American Academy of Family Physicians. □

Uncertain Times: Preventing Illness, Promoting Wellness

1996 International Conference on Physician Health

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February 7-10, 1996

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Key Note Speakers will include:

Frances Conley, MD -	"Ruminations of an Academic Maverick"
Leah Dickstein, MD -	"Preparing Our Trainees for Healthy Living"
Ronald Shellow, MD -	"Diagnosis vs. Disability: Legal and Clinical Issues"

Pre-Conference Institutes will include:

Update on Chemical Dependency: Edward Senay, MD, - *Cocaine*; Robert Swift, MD, PhD - *Current Pharmacologic Management Strategies*; Norman Miller, MD, - *Assessment and Management of Dual Diagnosis*

Update on Psychiatry: Morton Silverman, MD, - *Suicide*; Dominic Ciraulo, MD - *Newer Antidepressant Drugs and Drug Strategies*; Eberhardt Uhlenhuth, MD - *Anxiety Disorders: Changes in Diagnoses and Management*

Women's Health, 1996: Erica Frank, MD, MPH - *Research Needs and Plans*; Carol Scott, MD, MPH - *Violence as a Healthcare Issue*; Michael F. Myers, MD - *Relationships and Other Mental Health Issues*

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Dr. Patrick Anderson, a Richmond internist, received the 1995 Paul S. Rhoads Humanity in Medicine Award from Reid Hospital. He was honored for his history of extraordinary care to patients, including giving free medication to an unemployed man who had no insurance.

Dr. James W. Hardacker and **Dr. Peter N. Capicotto** of The Spine Institute, with offices in Carmel and Beech Grove, have been certified by the American Board of Orthopaedic Surgery. Dr. Hardacker co-authored two papers presented at the 1995 Scoliosis Research Society meeting in Asheville, N.C. The studies were titled "Loss of Lumbar Lordosis in Uninstrumented Solid Lumbar Fusions" and "Safety and Efficacy of Isola-Galveston Instrumentation and Fusion in the Treatment of Neuromuscular Spinal Deformities."

Dr. Frank Wu, an Indianapolis allergist, gave a presentation on "Allergic Pollens in Indiana" at the annual meeting of the American College of Allergy, Asthma and Immunology in Dallas, Texas. The research was an award-winning project, and the poster was displayed as a special exhibit at the Dallas Museum of Art during the meeting.

Dr. Scott D. Gudeman of Specialty Centers for Orthopaedic and Rehabilitative Excellence (SCORE) in Indianapolis spoke on "Treatment of Plantar Fasciitis with Iontophoresis" at the annual meeting of the American Orthopaedic Society for Sports Medicine Conference in Toronto, Canada.

Dr. Steven F. Isenberg of Indianapolis was certified by the American Board of Otolaryngic

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

September 1995

Armbuster, Thomas G., Fort Wayne
Bright, Robert A., Mishawaka
Clark, Michael A., Indianapolis
De La Coter, Frederick G., Munster
Delbello, Mark W., Fort Wayne
Farr, Jack, Indianapolis
Haber, Irving I., Terre Haute
Haerr, Robert W., Terre Haute
Hahn, Richard A., Indianapolis
Hatch, Stephen J., Fort Wayne
Heaton, Elton, Madison
Kaye, Robert C., Rensselaer
Lee, Thomas M., Hartford City
Lim, Young S., Evansville
Luce, John W., Michigan City
Mazdai, Abouzarjomehr, Connersville
Michael, John M., Indianapolis
Priddy, Marvin E., Fort Wayne
Rettig, Arthur C., Indianapolis
Van Hove, Eugene D., Carmel
Yolles, Elliott A., Indianapolis

October 1995

Ahler, Kenneth J., Rensselaer
Banning, Vernon P., Evansville
Czaja, Joseph T., Munster
Galup, Luis N., South Bend
Hathaway, William H., Auburn
Hogan, Michael A., Indianapolis
Kennedy, David B., Kokomo
Kight, Jerry L., Indianapolis
Kobak, Alfred J., Valparaiso
Ladowski, Joseph S., Fort Wayne
Larosa, Joseph A., Indianapolis
Lewckyj, Myron I., Valparaiso
Lucena, Bernardo S., Crown Point
Maxam, Beverly T., Indianapolis
Miller, Phillip M., Greenfield
Morera, Julio A., Evansville
Nasr, Suhayl J., Michigan City
Pugh, Newell O., Indianapolis
Schwartzman, Ilya, Columbus
Sturdevant, Frank M., Valparaiso
Sunkel, Daniel R., Lafayette
Tharp, Patricia W., Evansville
Wheeler, Jeffrey A., Fishers
White, Wayne B., Connersville □

Allergy. He spoke on "The Use of Interactive Video for Informed Surgical Consent" at the American Medical Writers Association annual conference in Baltimore, Md.

Dr. Rick C. Sasso, an orthopaedic surgeon with Indianapolis Neurosurgical Group, was a faculty member at a spinal instrumentation course sponsored by the Spinal Science Advancement Foundation in Memphis, Tenn. He lectured on anterior cervical plate and screw constructs and taught the practical bioskills workshop of anterior cervical plating.

Dr. Mark G. Richards, a Carmel family physician, received the Distinguished Young Alumnus Award from Indiana Wesleyan University. He is a 1977 graduate of Indiana Wesleyan.

Dr. Jane Howard of Nasser, Smith & Pinkerton Cardiology in Indianapolis spoke on "Psychosocial Aspects of CAD in Women" at the American Medical Women's Association meeting in Seattle, Wash.

Dr. Michael A. Kuharik and **Dr. Jeffrey I. Reider**, neuroradiologists with Premier Radiology Network in Indianapolis, have passed the Certificate of

Added Qualification administered by the American Board of Radiology.

Dr. Alan F. Smith, a pathologist from Bedford, received a three-year appointment as cancer liaison physician for the hospital cancer program at Bedford Regional Medical Center.

Dr. Andrew J. Vicar of Orthopaedics Indianapolis wrote the continuing education article in the September issue of *Professional Medical Assistants Journal*. His article was titled "Casualties of the Keyboard, Computer Related Disorders of the Upper Extremities."

Dr. Frederick M. Kelvin, a radiologist with Methodist Hospital in Indianapolis, was a guest faculty member at a postgraduate course in Phoenix, Ariz., on abdominal imaging. He spoke on colorectal cancer, small bowel obstruction, colitis, principles of double contrast studies and female pelvic floor disorders.

Dr. William Beeson, an Indianapolis facial plastic and reconstructive surgeon, presented five lectures at the fall scientific meeting of the American Academy of Facial Plastic and Reconstructive Surgery in New Orleans, La. He wrote an article titled "Surgical Management of the Upper Third of the Face" for the October issue of *Cosmetic Dermatology*.

Dr. Steven R. Dryden, an Indianapolis anesthesiologist, and **Dr. Thomas J. Fischer**, an Indianapolis hand surgeon, were named to the board of visitors for the College of Pharmacy and Health Sciences of Butler University.

Dr. Ronald L. Peterson and **Dr. James S. Robertson**, retired Plymouth family physicians, were honored for their combined 81 years of service. The Marshall

County Medical Society, St. Joseph's Hospital of Marshall County and the city of Plymouth recognized the physicians at a dinner.

Dr. Robert W. Haerr, a Terre Haute radiation oncologist, received the 1995 Weinbaum Award from Union Hospital. The award is given annually to a member of the hospital medical and dental staff who has provided outstanding service to the practice of medicine.

Dr. John C. Johnson of Valparaiso received the Emer-

gency Medical Services Award for outstanding contributions in the field by the American College of Emergency Physicians. He is the administrative medical director for the emergency center for trauma and critical care at Porter Memorial Hospital.

Dr. Stephen M. Simons of South Bend was selected to serve on a team of sports medicine specialists who traveled to Australia and New Zealand to exchange ideas on sports medicine issues. He is a sports medicine specialist and faculty member of St. Joseph's



Patrick A. Dolan, M.D., Indianapolis, signs copies of his book, *The Indiana Roentgen Society: A History*. Dr. Dolan, who has held several offices in the Indiana Roentgen Society, including president and councilor positions, researched and wrote the book. The history, which was compiled from minutes and other available records of the society and from interviews with members, covers the period from Jan. 20, 1928, to May 13, 1995.

Medical Center's Family Practice Residency Program.

Dr. Gerald Kurlander, an Indianapolis diagnostic radiologist, and **Dr. John C. Lowe**, an Indianapolis gastroenterologist, received the 1995 Community Hospitals Indianapolis Fellowship of Distinguished Physicians Award. The award recognizes those who have distinguished themselves in the areas of education, research and patient care.

Dr. Chad C. Lamb of Anderson was named a fellow of the American Academy of Family Physicians.

Dr. Jeffrey C. Bird, a Muncie family physician, was named to the Delaware County Board of Health.

Dr. Edward R. Gabovitch, medical director of the Arthritis Care Center at Methodist Hospital in Indianapolis, received the Indiana Chapter Humanitarian Award from the Arthritis Foundation.

Dr. Franklin K. Beeler, an Anderson family physician, has retired after 42 years in practice.

Dr. Randall Braddom, professor and chairman of the department of physical medicine and rehabilitation at the Indiana University School of Medicine, was installed as president of the American Academy of Physical Medicine and Rehabilitation.

Dr. Peter F. Kunz, an Indianapolis plastic surgeon, donates his services at the Marion County Juvenile Center for any youth who wants to have a gang tattoo removed.

William L. Purcell was honored by the Vigo-Parke-Vermillion Medical Society for his 25 years of service as executive director of the society.

New ISMA members

Romel C. Antolin, M.D., Indianapolis, obstetrics and gynecology.

Thomas M. Armstrong, M.D., Indianapolis, internal medicine.

Ingrid E. Aufderheide, M.D., Columbus, ophthalmology.

William M. Bailey, M.D., Jeffersonville, cardiovascular diseases.

Eric A. Bannec, M.D., Bloomington, internal medicine.

Joseph H. Beaven, M.D., Charlestown, internal medicine.

Laurence W. Behney, M.D., Bloomington, family practice.

Kambiz Behzadi, M.D., Terre Haute, orthopaedic surgery.

Luis F. Bernal, M.D., Gary, internal medicine.

Karl J. Blessinger, M.D., Muncie, clinical pharmacology.

Stephanie A. Brazus, M.D., Indianapolis, family practice.

Daniel E. Brier, M.D., South Bend, pediatrics.

Paul E. Broderick, D.O., Martinsville, colon and rectal surgery.

Michael J. Brubaker, D.O., Rochester, family practice.

Blandine B. Bustamante, M.D., Fort Wayne, anatomic/clinical pathology.

Tim J. Conrad, M.D., Corydon, ophthalmology.

Wendy K. Corning, M.D., Bloomington, obstetrics and gynecology.

David DeSantis, M.D., Richmond, family practice.

L. Mark Dean, M.D., Lafayette, radiology.

Stephen P. Dewey, M.D., Indianapolis, family practice.

James G. Donahue, M.D., Indianapolis, obstetrics and gynecology.

Daniel C. Eby, D.O., Jasper, orthopaedic surgery.

Michael A. Eifrid, M.D., Plymouth, obstetrics and gynecology.

Melissa K. Essig, M.D., Indianapolis, pediatrics.

Edward P. Fox, M.D., Evansville, oncology.

Jennifer L. Gage, M.D., Crawfordsville, general surgery.

Richard W. Gates II, M.D., Indianapolis, obstetrics and gynecology.

Paul R. Gettinger, M.D., Bremen, family practice.

Prodyot Ghosh, M.D., Bloomington, internal medicine.

Tali Giveon, M.D., Muncie, neurological surgery.

Norman J. Goldbach, M.D., Richmond, urological surgery.

Jeffrey M. Goodloe, M.D., Indianapolis, emergency medicine.

N.T. Gopalakrishnan, M.D., Terre Haute, internal medicine.

Nav K. Grandhi, M.D., Lawrenceburg, gastroenterology.

Mark W. Graves, M.D., Evansville, nuclear medicine.

Mark D. Griffith, M.D., Lafayette, physical medicine and rehabilitation.

Salomon Grinspan, M.D., Richmond, anatomic pathology.

Lisa A. Gulyas, M.D., Fort Wayne, pediatrics.

Joseph P. Harmon, M.D., South Bend, obstetrics and gynecology.

Alice M. Hartman, M.D., Seymour, obstetrics and gynecology.

Michele L. Helfgott, M.D., Munster, obstetrics and gynecology.

Jeffrey B. Hiltz, M.D., Muncie, family practice.

Scott R. Hobson, M.D., Indianapolis, ophthalmology.

Robert M. Holmes, M.D., Lafayette, internal medicine.

Beve P. House, M.D., Fort Wayne, emergency medicine.

Steven W. Huder, M.D., Evansville, clinical pathology.

Beth E. Ingram, M.D., Richmond, diagnostic radiology.

Robert M. Irick, M.D., Bloomington, emergency medicine.

Frederick L. Jackson, D.O., Fort Wayne, family practice.

Jonathan R. Javors, D.O., Schererville, orthopaedic surgery.

Richard M. Johnston II, M.D., Fort Wayne, anesthesiology.

Tracy A. Kangas, M.D., Munster, ophthalmology.

Daniel P. Kellar, M.D., Terre Haute, family practice.

Alan Koester, M.D., Lafayette, orthopaedic surgery, hand surgery.

Mark B. Lampert, M.D., South Bend, cardiovascular diseases.

Chong C. Lee, M.D., St. John, thoracic surgery.

Philip B. Leeds, M.D., Jasper, anesthesiology.

Linda M. Lenahan, M.D., Vincennes, internal medicine.

Teresa L. Lovins, M.D., Columbus, family practice.

Reggie D. Lyell, M.D., Corydon, family practice.

Michael T. Macfarlane, M.D., New Albany, urological surgery.

Arthur N. Mack, M.D., Evansville, family practice.

Merlyn J. Malola, M.D., Kokomo, general practice.

Howard J. Marcus, M.D., Munster, obstetrics and gynecology.

Cecil D. Martin, M.D., Carrollton, Ky., family practice.

Laura M. Maves, M.D., Fishers, pediatrics.

Rick A. Meyer, M.D., Fort Wayne, gastroenterology.

Thomas P. Miller, M.D., Michigan City, family practice.

Scott R. Miller, M.D.,

Shelbyville, radiology.

Fernando R. Montoya, M.D., Jasper, internal medicine.

Thomas A. Morse, M.D., Richmond, emergency medicine.

Syed M. Nawab, M.D., Louisville, Ky., cardiovascular surgery.

Mark T. Nootens, M.D., Munster, internal medicine.

Joyce A. O'Shaughnessy, M.D., Jeffersonville, oncology.

David E. Pallares, M.D., Jeffersonville, allergy and immunology.

Kiranchandra M. Patel, M.D., Bloomington, family practice.

Pamela K. Peak, M.D., Indianapolis, internal medicine.

Randall J. Phillips, M.D., Fort Wayne, radiology.

Gavin J. Roberts, M.D., Fort Wayne, ophthalmology.

Magdy Zaky S. Rofail, M.D., Richmond, gastroenterology.

Matthew B. Roush, M.D., Muncie, family practice.

Boris Sagalovsky, M.D., Crown Point, cardiovascular diseases.

David E. San Miguel, D.O., Michigan City, anesthesiology.

Anthony D. Sanders, M.D., Columbus, otolaryngology.

J. Christopher Sartore, M.D., Evansville, family practice.

James M. Scheffler, M.D., Kokomo, internal medicine.

David W. Schetter, M.D., Plymouth, anesthesiology.

Brian M. Schnell, M.D., Huntingburg, anatomic pathology.

Steven N. Schroeder, M.D., South Bend, anesthesiology.

Joel M. Schumacher, M.D., Plymouth, family practice.

Mehul H. Shah, M.D., Indianapolis, family practice.

Vijay P. Shah, M.D., Merrillville, internal medicine.

Joseph M. Smith, M.D., Richmond, obstetrics and gynecology.

Aruna Somani, M.D., Munster, internal medicine.

Patricia W. Sontag, M.D., Indianapolis, obstetrics and gynecology.

Kenneth Sowinski, M.D., Union City, family practice.

Theresa A. Sowinski, M.D., Winchester, anesthesiology.

Frank L. Spendal, M.D., Cayuga, family practice.

Carol A. Stauffer-Munekata, M.D., Evansville, family practice.

Sara C. Strickler, M.D., Lafayette, obstetrics and gynecology.

Charles L. Tapley, M.D., Muncie, family practice.

Gurdarshan S. Thind, M.D., Jeffersonville, cardiovascular diseases.

Charles A. Tollett Jr., M.D., Huntingburg, general surgery.

Jon S. Uloth, M.D., Evansville, family practice.

Naresh K. Upadhyay, M.D., Highland, internal medicine.

Margaret H. Vickers, M.D., Evansville, anesthesiology.

William M. Vickers, M.D., Evansville, anesthesiology.

Dennis L. Wagner, M.D., Indianapolis, anesthesiology.

William C. Watson, D.O., Winchester, family practice.

Daniel L. Wegg, M.D., Ridgeville, general practice.

Thomas L. Welch, M.D., Columbus, psychiatry.

Jeffrey M. Wempe, M.D., Muncie, anesthesiology.

Angela R. Wheeler, M.D., Gary, family practice.

Bernhard P. Wiebe, M.D., Markle, family practice.

Wilson W. Wu, M.D., Indianapolis, internal medicine.

Alexandria J. Zaleski, M.D., Munster, dermatology.

Robert A. Zaring, M.D., Muncie, clinical pharmacology. □

■classifieds

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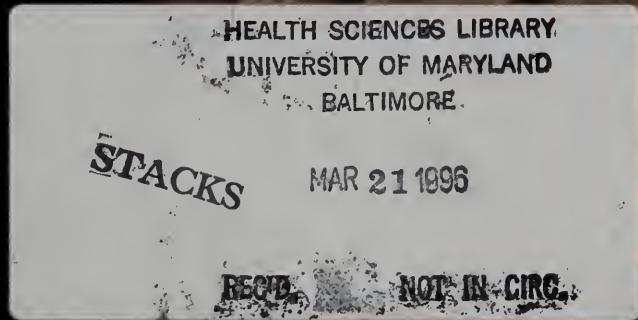
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March/April 1996

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INDIANA MEDICINE

The Journal of the Indiana State Medical Association

March/April 1996

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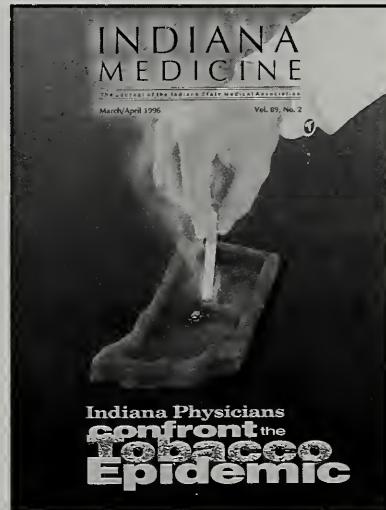
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■ letter to readers

Dear Colleague:

This issue of *Indiana Medicine* is dedicated to the serious problem of tobacco use in Indiana. Within these pages we have attempted to cover the many facets of the addiction, including the staggering scope of tobacco use among youth in Indiana; interventions for physicians to assist their patients in quitting; tobacco issues in organized medicine, public health and public policy; and the legal, ethical and educational aspects of tobacco use.

Three hours of CME credit are available for reading this journal and correctly completing the self-assessment. Additional instructions for receiving credit can be found on the self-assessment form. (See page 212.)

Please note that numerous resources are available to assist you in helping your patients abstain from tobacco use. Some resources are listed in the *Guide to Smoking Cessation* insert, which was designed to be detached for your office use. To receive a detailed list of other resources, you may contact the Indiana University School of Medicine Division of Continuing Medical Education at (317) 274-8353 or IUMEDDED.MED.IUPUI.EDU on the Internet. □

Stephen J. Jay, M.D.
Guest editor

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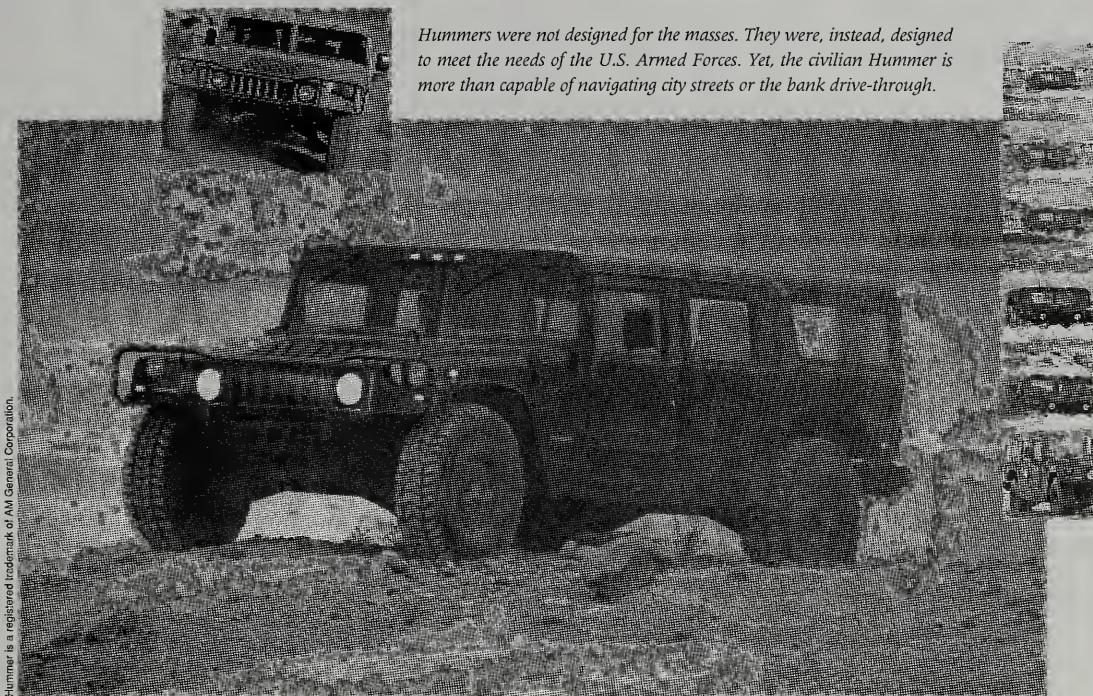
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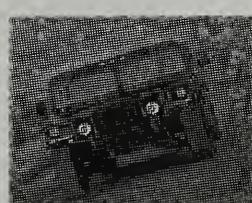
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■stethoscope

ISMA calls on physicians to take charge of outcomes data

Physicians concerned about their lack of influence in the health care market environment can take heart and take action by working with the ISMA to take ownership of physician-specific cost and outcomes data collection and dissemination. The ISMA, in a joint working relationship with the Indiana Hospital and Health Association (IHHHA), is relying on Indiana physicians to offer insights on the data collection process as the project develops. The ISMA, in an effort to relieve physicians' concerns over the use of outcomes data to label them either "good" or "bad" clinicians, sees physician involvement as an opportunity to help educate the health care marketplace on medical practice issues.

ISMA and IHHHA representatives are available to discuss the project at county and district medical society meetings. Call your ISMA field representative to schedule a presentation.

ISMA to study management service organizations

Management service organizations (MSOs). What are they and can they assist ISMA members in succeeding in a changing medical climate? To find out, the ISMA has launched a case study of MSOs. An MSO contracts with physicians or hospitals to provide management and administrative services. They also secure managed care contracts from HMOs, PPOs and self-insured employers.

The case study of seven to eight MSOs around the country will provide practical information to physicians and medical societies considering MSO development or participation. The study follows up on a directive of the 1995 ISMA House of Delegates to investigate creating regional or statewide managed care programs. Thomas Gorey, J.D., president and CEO of Policy Planning Associates, Crystal Lake, Ill., will be the consultant for the project.

The ISMA is partnering with the Michigan State Medical Society, the American Medical Association, the American Academy of Otolaryngology, the Massachusetts Medical Society and the Medical Society of the District of Columbia on the study.

ISMA membership survey to collect managed care information

The ISMA is conducting a survey to gather more information about its members, their practices and their communities. The 1996 Strategic Health Survey, which will be mailed to all active members in May, will collect socioeconomic and managed care information. All responses will be confidential and only aggregate responses will be reported. As was done in the 1994 Strategic Health Survey, one survey response will be selected at random from the completed surveys. The physician whose survey is selected will receive one free year of ISMA dues. □

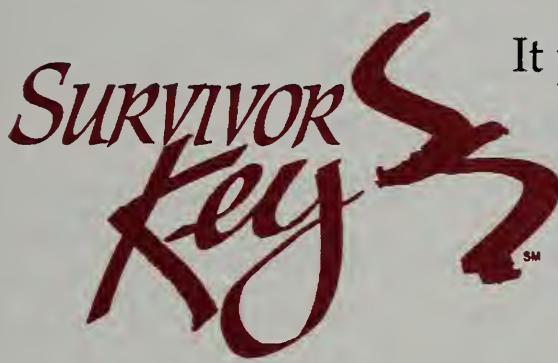
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■ guest editorial

Tobacco control in Indiana - Faith in a seed

Stephen J. Jay, M.D.
Indianapolis

"Though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me that you have a seed there, and I am prepared to expect wonders." - Henry D. Thoreau

The seeds of tobacco control were originally planted with the seeds of *Nicotiana tabacum*. But, the former have taken much longer to germinate than the latter.

Clinicians and scientists have known of the hazards of tobacco use for more than 150 years. The early literature is remarkable, for it shows how long ago keen observers recognized the addictive and disease causing capacity of human tobacco consumption.

For example, a statistical analysis of the effects of smoking on mortality of patients with tuberculosis found, in 1908, that mortality among smokers was more than three times the mortality among nonsmokers.¹ Closer to home, W.H. Williams, M.D., of Lebanon, Ind., in the early 1900s, cited tobacco smoking as, "very conducive" to development of laryngeal cancer.² Also from Indiana, John N. Hurty, M.D., Indiana state health commissioner (1862-1922), commented in 1912 that, "Tobacco is, of course, a drug. If it did not contain a drug it would not be in demand. Like other drug habits, when it is once

fastened upon a person it is difficult indeed to throw off."³

Almost 60 years ago, in 1938, the eminent epidemiologist, Raymond Pearl, reported that in a study at Johns Hopkins University, of more than 6,000 individuals, the lifespan of smokers was significantly shorter than of nonsmokers. Twenty-six years would pass before the U.S. Surgeon General's first report on smoking would be issued in 1964!

In the intervening years, society has reaped many crops of *Nicotiana tabacum*. Unfortunately, a world pandemic of disease and death caused by tobacco use has been our bitter harvest.⁵

But, society and health professionals are rising to the challenge. Leaders in public health, such as those recognized within this special issue, have raised awareness as to the enormity of the tobacco problem. In 1922, Bernarr Macfadden said, "Tobacco adds immeasurably to the cost of human existence; it subtracts immeasurably from the length and breadth of human life."⁶ The echoes of these words are beginning to reverberate in state legislatures and Congress, where proposed cuts in funding for health care must be rationalized with the costs to society of diseases caused by tobacco of more than \$50 billion per year.

While progress in tobacco control in government is important, real gains will occur only at the grass-roots level. Physicians

have a unique opportunity to lead the effort.

The seeds of tobacco control were planted long ago. The authors of this special issue of *Indiana Medicine* hope the information contained herein will provide "sunshine and water" to promote germination! If we are successful in implementing tobacco prevention and cessation activities in Indiana communities, we should not only expect, but realize, the wonders of our tobacco control efforts in the years to come. □

Dr. Jay is guest editor for this special issue of Indiana Medicine. He is assistant dean for continuing medical education and professor of medicine at the Indiana University School of Medicine.

*Correspondence and reprints:
Stephen J. Jay, M.D., Indiana University School of Medicine, 1120 South Dr., FH 302, Indianapolis, IN 46202-5114.*

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Indiana physicians recognized for tobacco control efforts

Stephen J. Jay, M.D.
Indianapolis

Perhaps no state can boast more substantive contributions of its physician leaders to tobacco control than Indiana. The people recognized here represent a small fraction of the many health professionals from across Indiana who have dedicated themselves to improving health through tobacco control. But, these four people each have contributed directly to shaping public policy and charting the future course of tobacco control in the United States and worldwide. For this reason, we want to present their brief biographies to our readers.

This information will no doubt rekindle fond memories among physicians who are familiar with these individuals and their work. For others, particularly younger physicians, the information may be a revelation. Some readers perhaps will be stimulated enough by the accomplishments of these remarkable men to pursue positions of leadership in preventive health and tobacco control for the 21st century.

Leroy Edgar Burney, M.D.
Leroy Edgar Burney, M.D., was born in Burney, Ind., and graduated from Indiana University (B.S., 1928; M.D., 1930) and Johns Hopkins University (M.P.H., 1932). He was



Dr. Burney

on the faculty at the Indiana University School of Medicine and was commissioner of the Indiana Health Department from 1945 to 1954.

Dr. Burney became surgeon general of the U.S. Public Health Service and on July 12, 1957, he was the first Public Health Service official in the United States to publicly acknowledge the causal relationship between cigarette smoking and lung cancer. In 1959, he stated in the *Journal of the American Medical Association* (1959;171:1829-1837), "the weight of evidence at present implicates smoking as the principal factor in the increased incidence of lung cancer." Dr. Burney's bold first step facilitated the creation of the Advisory Committee on Smoking and Health, which issued the now famous 1964 surgeon general's report.

John Bamber Hickam, M.D., (1914-1970)

John B. Hickam, M.D., was born in Manila, Philippine Islands, the son of a native Hoosier, Col. Horace Hickam, an aviation pioneer, for whom Hickam field in Honolulu was named. Dr. Hickam was graduated summa cum laude from Harvard University (A.B., 1936) and cum laude from Harvard University School of Medicine (M.D., 1940). In 1958, he became chairman of the Department of Medicine at the Indiana University



Dr. Hickam

School of Medicine.

At his untimely death in 1970, Dr. Hickam was recognized widely as one of the foremost leaders in American medicine. Because of Dr. Hickam's exceptional leadership qualities and pre-eminence in cardiopulmonary research, he was selected by Surgeon General Luther L. Terry, M.D., as one of 10 members of the original Surgeon General's Advisory Committee on Smoking and Health in 1962. As one of the authors of the 1964 surgeon general's report, Dr. Hickam contributed directly to the creation of a blueprint for public health policy that has had a profound impact on tobacco control throughout the world.

Lewis C. Robbins, M.D., (1910-1990)

As founder of the Society for Prospective Medicine in 1965, Lewis C. Robbins, M.D., was nationally recognized as the "father" of prospective medicine, a medical philosophy dedicated to improving human life through preventive health. He was a native Hoosier and graduated from Indiana University and Indiana University School of Medicine (1935). He obtained an advanced degree in public health from Johns Hopkins University. After early work at the Indiana State Board of Health, he joined the U.S. Public Health Service (PHS) where he became the first



Dr. Robbins

chief of cancer control for the PHS (1957-1965).

When he retired from the PHS in 1968, Dr. Robbins collaborated with Jack H. Hall, M.D., at Methodist Hospital in Indianapolis and others to develop Health Hazard Appraisal, a methodology for assessing a person's personal disease risks and proposing lifestyle changes to reduce these risks. Much of Dr. Robbins' innovative work for more than 40 years was devoted to smoking cessation and tobacco control.

Otis R. Bowen, M.D.

Otis R. Bowen, M.D., was born in Richland Center, Ind., in 1918, and graduated from Indiana University (1939) and the Indiana University



Dr. Bowen

School of Medicine (1942). After practicing family medicine in Bremen, Ind., he entered politics, ultimately becoming the first governor of Indiana to serve two successive four-year terms (1973-1981). Dr. Bowen became the Lester D. Bibler professor of family medicine at the Indiana University School of Medicine, where he directed undergraduate family practice education.

In 1985, he was nominated by President Ronald Reagan and confirmed by the Senate as secretary of the Department of Health and Human Services (HHS), where he served until Jan. 20, 1989, longer than any previous HHS secretary. During his tenure at HHS, Dr. Bowen sent five reports from his surgeon general, C. Everett H. Koop, M.D., to the president. Two of these reports have become milestones in the history of tobacco control. The 1986 report provided extensive

documentation of the public health hazards of passive smoking. The 1988 report presented exhaustive scientific and clinical evidence of the marked addictive properties of nicotine in tobacco. Dr. Bowen's strong support of C. Everett Koop's landmark reports assured that sharp focus would be drawn on the public debates surrounding tobacco control. Recent proposals to regulate tobacco came directly from these pioneering efforts of Drs. Bowen and Koop.

Dr. Bowen continues to participate actively in the affairs of our community. The Bowen Center at Indiana University researches behaviors that lead to self-inflicted disease from tobacco, alcohol and other sources. □

*Correspondence and reprints:
Stephen J. Jay, M.D., Indiana University School of Medicine, 1120 South Dr., FH 302, Indianapolis, IN 46202-5114.*

A conversation with C. Everett Koop, M.D.

Stephen J. Jay, M.D.
Indianapolis

C. Everett Koop, M.D., was born in Brooklyn in 1916, received his M.D. from Cornell University in 1941 and, in a 35-year career at Children's Hospital at the University of Pennsylvania, became one of the nation's foremost pediatric surgeons.

From 1981 to 1989, Dr. Koop served as surgeon general of the United States Public Health Service and Director of International Health. During this period, Dr. Koop became recognized internationally for his efforts in raising awareness of the devastating effects of tobacco use on human health in the United States and worldwide.

His work schedule today includes 90-hour work weeks. He teaches medical students at Dartmouth College, where the Koop Institute is based. He is chairman of the National Safe Kids Campaign, Washington, D.C., and is producing 75 point-of-diagnosis videos over the next two years for *Time-Life Medical*, of which he is chairman of the board.

On Sept. 13, 1989, when Dr. Koop made his last appearance as surgeon general before the U.S. Congress, he spoke eloquently about the issue that he had become most clearly associated with, tobacco and health, specifically, the topics of tobacco advertising and children's access to tobacco products — issues that Dr. Koop addresses in the following interview with *Indiana Medicine*.

Dr. Jay: During your watch as surgeon general of the United States, eight reports on the health consequences of smoking were issued from 1982 to 1989. What do you believe is the most important legacy of your tobacco control efforts during these years?

Dr. Koop: I think there are three things. Two reports were really landmarks: the one on passive (side-stream) smoking¹ which began the whole movement toward getting clean air in public places like restaurants and led eventually to my getting the studies done that enabled the Senate to take action against smoking on airplanes. I think, judging by what people say to me as I travel, there are more people grateful about smoke-free airplanes than any other single thing. It's especially true of flight attendants.

The next report that I think was very important was the addiction report² because all the people had, sort of, done soft-shoe dances around addiction. I came out and said it was as addictive as heroin or cocaine. That got front-page headlines in every major newspaper with pictures all over the country — that was news! Addiction is the thing that tobacco companies hate more than anything else. During my tenure, when we tried to change the labels on advertising and cigarette packages, we really initially had five things we wanted to change. We got four of them in quite readily by dropping the fifth one. The fifth one was that "tobacco contains nicotine which is an

addictive drug." That's the one thing they can't stand, and so I think it was an important report.

I'd say the things that are outstanding for me are those two reports, plus the fact that as surgeon general, I went beyond just talking about the health consequences of smoking, and whenever possible, I pointed out the sleazy manner in which the tobacco industry does its business. It was hard to do that because I knew about secret documents and things that had never been made public. But now that Brown & Williamson Tobacco Corporation's internal documents are part of the public record,³ the whole thing is based on those papers. We now have a whole new footing on which to stand in reference to tobacco litigation.

Dr. Jay: In the six years since you left the position of surgeon general, the pace of change in tobacco control seems to have quickened with recent Congressional hearings and Food and Drug Administration reports. David A. Kessler, M.D., FDA commissioner, in a hard-hitting editorial in the *New England Journal of Medicine*,⁴ raised the issue of regulation of nicotine-containing tobacco products. Could you speak to that issue? Should the FDA regulate tobacco products as drugs?

Dr. Koop: I think if it were not for the strange culture in America concerning tobacco — the fact that tobacco money won the American Revolution and that Congress has always dealt with tobacco-growing

states as though they had most favored nation status – we should have regulated tobacco years ago. But Congress declared that tobacco was not a cosmetic, not a drug and not a food and therefore did not come under the purview of the FDA. Now that we have those documents and we know that cigarettes not only contain natural nicotine and tobacco but are "spiked" with nicotine as well, I think there's no doubt about the fact that the FDA should regulate tobacco as a drug.

Dr. Jay: In the preface to the 1982 surgeon general's report,⁵ you stated, "Cigarette smoking is the chief single avoidable cause of death in our society and the most important public health issue of our time." In the 13 years since you made that statement, progress has been made in tobacco control, but at somewhat of a slow pace, considering the magnitude of the problem. Recent findings from the study of Dr. Lloyd Johnston at the University of Michigan⁶ and the CDC⁷ suggest that smoking among young children and youth (8th graders through 12th graders) has increased sharply. What can we do in 1996 to hasten progress in reducing the burden of tobacco-related disease in our society?

Dr. Koop: I'm glad you raised that paradox because everything you said about the stepped-up interest in making the air free of tobacco in going toward a smoke-free society by the year 2000, the apparent perjury of the tobacco executives when they stood before Congressman Waxman's committee and said that they didn't know that tobacco was considered addictive or that it caused any diseases – I

think all of these things have been remarkable progress.

But the sad thing is that, in spite of that, smoking in teen-age boys and girls has gone up. You have to wonder why. I think there are two reasons. When I left office, tobacco companies were spending an aggregate \$4 billion a year; now, it's reported to be \$5 billion, essentially saying that all the health messages that they get from government or private sector are wrong. So, they have not only stepped up their campaign, but they have introduced things that ethically their own code really prevents them from doing, such as pandering to youngsters as they do with Joe Camel.

Let me say, parenthetically, you may have seen the huge two-page ad (*Wall Street Journal*, June 28, 1995) in major newspapers around the country from Philip Morris saying that they want to do everything they can to keep children from smoking. That's such a grandstand play, but the very way that they state it makes kids want to smoke because they say "smoking is an adult decision." Every kid wants to make an adult decision, so he's going to make a decision to smoke, if he can. They do this kind of underhanded, sleazy kind of advertising, and it's very hard for the government, with an extraordinarily limited budget, to be able to do anything to counteract that.

Another thing is that, since I left office, I don't think there has been the constant hammering away at the process by the surgeon general. I did a lot of other things besides smoking, but I never stopped talking about smoking, and I never stopped bringing that to the forefront of the public's attention whenever I could, and I

think that's been lacking. We've had times when there was no surgeon general, and we've had times when the surgeon general was not as vociferous as I had been in making this clear.

Now, your question was, "What can we do to hasten progress in reducing the burden of tobacco-related disease?" There are a lot of things that can be done that are hard to do right now because we don't have a committee on health in the House which is favorable to what we want to do in smoking reduction; we have a free enterprise, pro-business Republican Congress that takes a dim view of the possibility of regulating tobacco products as Kessler has suggested. So, I think there are things that can be done from the top-down and from the bottom-up. Grass-roots things work very well, and we've got to get parents interested in local, regional and state government so that the existing laws which prohibit the sale of tobacco to minors are enforced. There's hardly a place in this country where a kid can't go into a supermarket or a convenience store or some other place and buy cigarettes. Some are asked, "Are you old enough?" and the answer will be, "They're not for me, they're for my dad." The other thing is vending machines where there is no way that you can control who purchases them. These are things that can be worked on by local grass-root groups.

The best thing that can happen from the government's point of view is to increase the tax on cigarettes. There's no doubt about the fact that that is the single most effective way to cut down on the consumption of tobacco. We know from studies in Texas that if you

increase the total cost of a box of cigarettes by 10%, there's a decrease in teen-age smoking of 12%. We know that in Canada when they raised the price of cigarettes to about \$5 a box, smoking in young people fell off 60%. That has its downside, too, because as soon as that happened in Canada, a criminal element in the United States and Canada got together and began importing cigarettes across the border for the black market to sell at much less than the market price. The crime was so great in Ontario because of that, that they backed off on the tax in order to reduce the crime. It's rather a sad commentary on the greed of some parts of our society.

But, if we don't do something from the top and the bottom to try and curb teen-age smoking, we will have lost the gains of all the past 30 years, which have really been remarkable – reducing smoking from 55% to 26%. But, once you get something started like this, it's very difficult to turn it back, so I would say we've got almost a decade's fight ahead of us to reverse this trend and begin to see smoking at the level it was when I left office in reference to teen-agers. The sooner we get onto that, the better.

That's why you need somebody in an office like the surgeon general who hammers away at the public on what's happening to their children, because the number of children in this country who are living normal, happy lives today but who will die from smoking is an unbelievable number. Peto at the University of Cambridge has estimated that of the children living in China today, 500 million will die from smoking causes. That's such a staggering number

that you can't absorb it.

Dr. Jay: It has been suggested in some of the budget-cutting rhetoric that the office of the surgeon general is no longer necessary. Is there a serious effort to do away with the surgeon general's office? What implications would that have for tobacco control?

Dr. Koop: Four bills have been presented to eliminate the office. I think it's rather pathetic that this Congress, not liking the last two designations by President Clinton for surgeon general, has decided the way to settle the problem is to get rid of the office. If you carried that to its logical conclusion, we ought to get rid of the presidency because only 40% of Americans voted for Bill Clinton. It's really an insanity. The House has already voted in committee not to fund the surgeon general's office as far as appropriations are concerned. Whether or not cooler heads will prevail or not, I don't know.

There are a tremendous number of things that this Congress doesn't know about the surgeon general. In fact, this Congress knows very little about how any agency works. They have no idea how commerce works, labor works, education, HHS, etc.

When it comes to the public health service, I think their knowledge is abysmal. If you don't have a public health service and it's being destroyed right now and you don't have a surgeon general, a lot of things that are already statutory will disappear. The statutes say that there will be an annual report by the surgeon general to Congress on some aspect of smoking and health.

Those reports have been the backbone of the fight against tobacco. If we had not had them, don't think we could have ever made the inroads that we have.

Dr. Jay: In September 1994, Dr. Peto, a preeminent epidemiologist, published a comprehensive study regarding the tobacco pandemic.⁸ Data were presented to indicate that approximately half of all adult smokers who begin smoking in their teens will be killed by tobacco. We know that approximately 3,000 young people become dependent upon tobacco daily in the United States. Recently, Dr. Kessler has called tobacco use a "pediatric disease." What steps do you recommend that physicians, whether pediatricians or general physicians or family physicians, take in managing underage tobacco use?

Dr. Koop: The first thing that somebody has to do is educate physicians as to the whole story of tobacco smoking. You've just said that people who start smoking in their teenage years become veteran smokers and these are the ones of whom a third will die. That's true, but that's not the question to ask. The question to ask of young people is, "When did you decide that you would start smoking if you could?" That age is 8. So, what we do is, after a kid has already decided that, "As soon as I get out of this house and as soon as I can go to school without my mother watching me, as soon as I'm in junior high school, I'll be smoking – I'll be cool – I'll look like Joe Camel's people – I'll be smoking Camels." That's exactly what he does. So, when you approach a teenager at 13 and tell him that he

shouldn't smoke, he's laughing at you with a tobacco-flavored breath and hiding his laughter with tobacco-stained fingers. He's already been in there for five years. So, we've got to get the pediatrician and general practitioner and generalist medical doctors to understand that fact.

If I had my way, I would start teaching parents at the first intake of a new baby into a pediatric practice that one of the things they've got to avoid is passive smoking for the youngster because the studies all show developmental changes in children who are exposed to the passive smoking of their parents. If you start with that and make the parents understand what they're doing to their children and that they've got to protect them before they can protect themselves, then they need to raise their kids to protect themselves. I think that's the only way to go. No effort that I know has ever been undertaken to get pediatricians to do that. I think it should be; it should become one of the objectives of the American Heart Association, the American Lung Association and the American Cancer Society; I would be moving in that direction if I were still surgeon general.

The thing that is so important is to get pediatricians aware of it. We did an experiment recently on having pediatricians understand the danger of loaded guns in homes and how that contributes to the unintentional deaths of so many children across the country. I did a tape for pediatricians on a pilot basis that they could listen to in their cars suggesting that part of every history they take of a new patient should include, "Do you have a gun in your house?"

"Where are the bullets kept?" "Is it locked up?" etc. This begins to make parents aware of a big danger for their children. The exact same thing could be done for tobacco.

Dr. Jay: In 1900 in the United States, one in five people died from tuberculosis, and a remarkable TB control effort, including public and private sectors, succeeded in dramatically reducing the incidence of this disease over several decades. Today, we're in the midst of an epidemic of equal magnitude but entirely man-made. Tobacco use today accounts for about 20% of all deaths in the United States. We've mounted a considerable anti-tobacco effort. But, we have a tobacco industry marketing budget of more than \$5 billion per year aimed at encouraging young people to use tobacco. How can we respond adequately to an epidemic where the "infecting agent" is not a microorganism but the aggressive marketing of tobacco products that cause nicotine addiction?

Dr. Koop: You've got to stop the tobacco industry. If you had had the XYZ industry spending \$5 billion yearly, or its equivalent, about the time when I was in medical school saying all this nonsense about tuberculosis is for the birds and just don't pay any attention to it; it's not a serious disease; it won't hurt you, and it isn't spread the way they say it is - we'd still have tuberculosis with us. So, we've got to get at what makes the difference between the attack on tuberculosis and the attack on tobacco. The difference is the tobacco industry. They are saying that government is wrong;

the health people are wrong; if you want to succeed in life, in politics, in glamour, in labor, in scholastic work, in sports, in sex - you'd better be smoking, because look at these wonderful people we have in these glossy pictures, inferring that that's how they got where they are. So, I would eliminate advertising; I would make it absolutely illegal to have such characters as Joe Camel pandering to children. If I had my way, I would have only tombstone advertising for cigarettes. Countries like Finland that have done that have been very successful.

Dr. Jay: You have been involved recently in teaching at Dartmouth and in producing materials related to public health. Could you comment on your current activities and the extent to which these impact the issue of tobacco control?

Dr. Koop: Personally, I still respond when I can to invitations to speak to various groups about the dangers of smoking or of smokeless tobacco. What we're doing at Dartmouth is really following the mission of the Koop Institute, which is to reform medical education. One of the ways we're doing that is to teach medical students to be better communicators; we do that by having them teach, with grade school teachers, things about the human body, prevention of disease and promotion of health to grade school children. We also do this in middle schools and high schools. Part of that program from beginning to the end is: "Don't smoke." So, we're trying to teach medical students to make the "no smoking" message a very central

core of the kinds of things that they talk to families and patients about.

Dr. Jay: Would you comment regarding the role of litigation in tobacco control?

Dr. Koop: With the disclosures made by Brown & Williamson's secret papers – and we know that they exist in the other tobacco companies as well – I think the whole future of tobacco liability cases will change. There never has been a case won against the tobacco company for the death of a patient from smoking. One of the reasons why is that some of these documents had been leaked. No judge ever permitted them to be used as evidence. But, now, they're in the public domain. They've been discussed before Congress. They're in the Congressional Record, and no judge can say that they cannot be submitted as evidence. So now, when a jury knows that for 30 years the people

who sell tobacco have not only known it was addictive, and they knew that it caused heart disease and cancer and stroke and emphysema, I think a jury is going to bring in a very large award against some company in favor of a plaintiff. When that happens, I think the whole underpinning of the financing of the domestic tobacco industry will be in jeopardy. I couldn't be happier about that. However, don't start to cheer from the housetops because for every buck they lose here, they make two overseas in the reprehensible way in which this country exports disease, disability and death to developing countries. □

Stephen J. Jay, M.D., guest editor of this special issue, conducted this interview. The transcript of the entire interview has been edited, and key references have been included.

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A conversation with Ronald M. Davis, M.D.

Bob Carlson
Indianapolis

Cigarette smoking kills about 420,000 Americans every year, according to the Centers for Disease Control and Prevention. That's one-fifth of all deaths in this country annually, and more than the combined number of deaths from alcohol, cocaine, heroin, suicide, homicide, car crashes, fires and AIDS.

To find out more about tobacco use prevention, *Indiana Medicine* talked with Ronald M. Davis, M.D. After 11 years of working for federal and state government, Dr. Davis accepted the directorship of the Center for Health Promotion and Disease Prevention at the Henry Ford Health System in southeastern Michigan in September 1995. He had been the chief medical officer in the Michigan Department of Public Health since 1991. From 1987 to 1991, Dr. Davis served as director of the U.S. Centers for Disease Control's Office on Smoking and Health.

Dr. Davis received his medical degree and a master of arts degree in public policy studies from the University of Chicago. He also completed the Epidemic Intelligence Service program and the preventive medicine residency program at CDC. From 1984 through 1987, he served as the first resident physician member of the American Medical Association's Board of Trustees. He was elected to the AMA Council on Scientific Affairs in June 1993.

Dr. Davis has published widely in peer-reviewed journals

and has received numerous honors and awards, including the Surgeon General's Medallion and the American Public Health Association's Jay S. Drotman Memorial Award. He is a member of the World Health Organization's Technical Advisory Group on Tobacco and Health and is the editor of *Tobacco Control: An International Journal*, which was launched by the British Medical Association in 1992.

Indiana Medicine: You were the first resident physician member of the AMA Board of Trustees and throughout your career in public health, you have actively sought to bring organized medicine and the public health sector into collaborative relationships. Can you cite some specific examples of how such collaboration has resulted in the development of successful preventive health programs?

Davis: Let me give you three examples. First, in the area of tobacco, the AMA has received a \$10 million grant from the Robert Wood Johnson Foundation to administer a grant program called "Smokeless States." In this program, the AMA has disbursed grants to a dozen or so states to give them resources to do creative and aggressive tobacco control, based in particular on strong coalition-building. That program has allowed many states to do things that might not have been possible under other grant programs administered by the federal government, for example. That program has shown how well organized medicine can get into the business



Ronald M. Davis, M.D.

of preventive medicine and public health, and I say public health there because these state grants have usually involved the state health departments in a major sort of way.

Another example is a grant the AMA received from the Centers for Disease Control and Prevention to develop what are called Guidelines for Adolescent Prevention Services, or GAPS. These are guidelines for pediatricians and family physicians to use with their adolescent patients to promote health and prevent disease. GAPS has been published by the AMA with 15 different chapters covering substance abuse, prevention of sexually transmitted diseases, prevention of injuries, and so on.

Here in Michigan, we are testing the implementation of GAPS in a school-based clinic. GAPS could be used in a physician's office, a school-based setting or a public health clinic. One of the key strategies being used in public health is to use primary care providers to

do prevention, and GAPS is an excellent tool for that.

Let me give you one other example at the state level. The Michigan Department of Public Health has given grant support to the Michigan State Medical Society at a level of about \$140,000 a year for a number of years to allow the state medical society to do professional education and public education in the area of HIV/AIDS. That money supports a speakers bureau for talks on HIV/AIDS to school kids, to community organizations, to hospitals in grand rounds sessions, for example. That collaboration has been very helpful to the state public health department in Michigan to help educate the public and the medical profession on HIV/AIDS.

Indiana Medicine: As a former director of the CDC's Office on Smoking and Health, you oversaw the development of several Surgeon General's reports. One of these, the 1988 report on nicotine addiction, has provided the impetus for FDA Director David Kessler, M.D., to classify tobacco as a drug and to propose regulation aimed at preventing nicotine dependence among young people. Do you believe, first of all, that tobacco is a drug?

Davis: There is really no question that nicotine is an addicting drug and that tobacco products are addicting. The Surgeon General's report in 1988 laid out all the evidence to back up that conclusion in 600-plus pages, and most leading health authorities and addiction experts would agree that nicotine is very addicting.

Indiana Medicine: Should tobacco, therefore, be regulated by the FDA?

Davis: It should have been regulated by the FDA a long time ago, but fortunately the FDA is moving forward quickly now to bring tobacco under its regulatory authority. The federal Food, Drug, and Cosmetic Act allows the FDA, in fact obligates the FDA, to regulate products that are intended to affect the structure or function of the body, and clearly, nicotine-containing products affect the function of the body. Nicotine is very physically and pharmacologically active in the body, and its psychoactive effects in particular represent a hallmark of an addicting drug. The key issue was to determine whether those effects were intended by the manufacturers of those products, and the FDA has laid out a very convincing case that the manufacturers of cigarettes and smokeless tobacco intended for their customers to become addicted and to remain addicted. That evidence has surfaced from internal industry documents, from industry patents for new products, from research published by tobacco industry scientists, and from the companies' marketing, advertising and promotional activities.

Indiana Medicine: During your tenure as Michigan's chief medical officer from 1991 to 1995, you worked closely with the Michigan State Medical Society on the legislative effort that resulted in the largest cigarette tax in the U.S. Michigan's tobacco tax increase from 25 cents to 75 cents per pack resulted in more than \$550 mil-

lion in revenues, \$35 million of which was allocated for public health programs in Michigan. At a time when increasing taxes seems like a politically difficult thing to propose, do you believe that taxing tobacco products is good public policy?

Davis: It certainly is, and in many ways, tobacco taxes represent a win-win policy. First, it raises needed revenue. Second, it saves lives. Third, people like it, compared to other sources of revenue. And fourth, it actually increases jobs in states that don't grow tobacco. It might surprise people to hear that, but it comes out of research conducted by Professor Ken Warner and colleagues at the University of Michigan School of Public Health. They published a study in the *Journal of the American Medical Association* last year which determined that many jobs would be created if tobacco were to disappear from Michigan. The reason is that when people in Michigan buy tobacco, much of that money, maybe most of that money, will go to North Carolina, Kentucky and other tobacco-growing states. If they didn't smoke cigarettes, they would tend to spend that money on other goods and services, most of which would go to people and businesses in Michigan and would create jobs here. That argument can be made for other states that don't grow tobacco. So a tobacco tax increase is good public policy for those four reasons and probably for many others as well.

Indiana Medicine: Have there been any studies or data to suggest how many lives have been saved in Michigan as a result of this tax

Davis: It's too early to come up with a firm estimate of how many lives have been saved or will be saved, but we did estimate during the campaign that the tax increase would reduce the number of smokers in Michigan by 143,000 adults and by 29,000 teenagers and that these reductions in the number of smokers would result in 69,000 lives saved over the long term. We made the point that there are few things in public health that we could do that would accomplish such an improvement in public health with such ease as an increase in the cigarette tax.

I don't think there's any question that lives have been saved. Cigarette sales are down by about 20% now compared to the period of time before the tax was increased. Most of that drop in sales is due to fewer teens taking up smoking and more adults quitting smoking. Some of it may also be due to smokers smoking fewer cigarettes a day. So there will be gains in health and quality of life and life expectancy from all of those effects.

Indiana Medicine: In September 1995, you assumed a new position, director of the Center for Health Promotion and Disease Prevention of Henry Ford Health System, one of the largest health systems in the country. How will this center support the needs of physicians, other health professionals and their patients at HFHS?

Davis: We will be promoting prevention in clinical settings through a variety of means, including supporting clinical preventive services by physicians and other health care providers; the development,

validation and dissemination of patient educational materials; and some direct patient counseling in areas such as hypertension, diabetes, nutrition and smoking cessation. We will also be working in the community with activities such as work site wellness and community health promotion – for example, screenings at health fairs. We'll also be using health communication tools to get the message about healthy lifestyles out directly to the public through the mass media and by working with community-based organizations and other health allies.

Indiana Medicine: You were instrumental in developing a peer-reviewed scientific journal *Tobacco Control: An International Journal*, published by the British Medical Association. For the past five years you have served as the founding and only editor of this journal. What role do you believe this journal plays in international efforts to prevent tobacco-related disease and death?

Davis: The tobacco trade is global in nature, and there are a handful of multinational tobacco companies, based primarily in the United States and the United Kingdom, that are working aggressively throughout the world to promote tobacco use, especially in developing countries. The international health community is only now beginning to develop strong networks so that we can get our message out and so that we can work collaboratively and cooperatively across national boundaries.

I hope that our journal can play an important role in that communication and in that information-sharing. We have associate

editors and members of our editorial advisory board who come from more than 30 countries. We have readers who come from many more countries than that. We're certainly in all regions of the world, and we publish material on tobacco and health that focuses not just on the United States but on what is happening overseas. We all have a lot of lessons that we can learn from each other, and that's a major goal of the journal, to allow us to share those lessons that we've learned in our own back yards. The journal has scientific articles similar to those seen in other peer-reviewed journals, but unlike most other journals, it also has a large portion devoted to news, commentary and review of activities of the tobacco industry.

Indiana Medicine: Organized medicine has stepped up efforts in recent years to control the tobacco epidemic. The AMA, under Dr. James Todd's leadership, has contributed greatly to tobacco control in the United States. The British Medical Association is publishing the journal you edit. From your international perspective, is there a trend for medical societies and associations to become more involved in tobacco control?

Davis: I think there is. Medical societies are perceived by much of the public and by the media as professional trade unions. These organizations have focused their energies on pursuing matters of concern to their members, and those include socioeconomic issues as well as pocketbook issues. But I think in recent years, medical societies have become more and more oriented toward public health is-

sues and the need to promote health and prevent disease in the communities in which we see our patients. As a result, I think we're seeing organizations like the AMA and the BMA and state and county medical societies becoming involved in public health programs and campaigns, both as partners and as primary sponsors.

One thing that Indiana needs to do as a state is to increase its

own cigarette taxes. Indiana's tax is 15.5 cents per pack, which creates a huge disparity in cigarette prices between Michigan and Indiana and which probably leads to some cigarette smuggling between the two states. We're always getting hit with press releases being put out by tobacco interests and smokers' rights associations talking about the "uncontrolled" smuggling occurring between

Michigan and states that have low taxes on tobacco. I think most of those claims are hyped up, but I would admit that some smuggling goes on, and we wouldn't have a problem if states like Indiana increased their tax to our level. □

Bob Carlson is a health care writer based in Indianapolis.

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ASSIST: Making a difference in Indiana

Kelly L. Bishop
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Tobacco use remains the leading preventable cause of death and disability in Indiana. Each year, approximately 10,000 Hoosiers die from smoking-related diseases. Tobacco use costs every man, woman and child in Indiana approximately \$548 per year in health care costs.¹ Nonsmokers also suffer from involuntary exposure to environmental tobacco smoke (ETS). While tobacco use rates among adults have declined a modest 1% in five years (27.3%, 1988; 26.4%, 1993)², Indiana youth continue to use tobacco at alarming rates. According to the Indiana Prevention Resource Center, 40% of high school seniors, 30% of ninth graders and 20% of seventh graders in Indiana use tobacco.

The National Cancer Institute (NCI) has conducted major research programs to develop effective interventions to reduce the prevalence of tobacco use. Indiana ASSIST is a part of the NCI's American Stop Smoking Intervention Study (ASSIST) for cancer prevention.

ASSIST, the largest tobacco control program ever conducted by the U.S. government, provides the state-of-the-art process for local community members to help prevent tobacco use, protect nonsmokers from ETS and assist those who use tobacco in quitting. Individuals from businesses, schools, community groups and health care settings serve as ASSIST coalition members. By working together through ASSIST coalitions, individuals and organi-

zations can be instrumental in reducing the number of smokers in the state, preventing children from using tobacco, preventing unnecessary disease and death and reducing the financial toll tobacco places on all Hoosiers.

Indiana is one of 17 states selected by the NCI to implement the ASSIST Project, which is funded through 1998. Indiana ASSIST is a partnership of the Indiana State Department of Health (ISDH) and the American Cancer Society, Indiana Division (ACS). The mission of Indiana ASSIST is "to improve the quality of life in Indiana by promoting tobacco-free, healthy lifestyles among Hoosiers through community action and advocacy, to prevent tobacco use, provide assistance to tobacco users who want to quit and protect nonsmokers from environmental tobacco smoke." The goals of this seven-year program in Indiana are to: reduce to 17.7% the number of adult smokers; maintain the use of smokeless tobacco among adult males at less than 4%; and reduce the number of youth who start using tobacco by 50%.³

The ASSIST model is the culmination of more than 40 years of tobacco control research. Early tobacco control interventions focused on individual change, including educational programs, cessation programs and self-help materials. While these interventions had some success, the sustainability of the success was often short-lived. More recent tobacco control interventions, including ASSIST, focus on changing the social acceptability of tobacco use through public and

private policies and extensive media campaigns to discourage tobacco use.⁴ Smokers who quit are more likely to remain nonsmokers in an environment that promotes nonsmoking as the norm. Children are less likely to use tobacco products if the financial burden is high. Media messages, which promote policy changes, de glamorize tobacco use, and promote tobacco-free, healthy lifestyles have been successful in altering the social climate concerning tobacco use.

Indiana ASSIST is comprised of a state-level coalition and five local coalitions. Local coalitions are active in northeast, north central, northwest and central Indiana, as well as Vanderburgh County. Indiana ASSIST also provides technical assistance and resources to communities outside ASSIST coalition areas. More than 500 individuals and organizations are participating members of Indiana ASSIST coalitions.

Indiana ASSIST efforts promote four major tobacco control policy areas: clean indoor air, youth access to tobacco, advertising and promotions, and taxes. Indiana ASSIST provides training resources and technical assistance to Hoosiers to advocate for these changes.

Clean indoor air

Indiana ASSIST coalitions have made outstanding accomplishments in raising public awareness and creating a greater voice for clean indoor air policies. A "Go for Atmosphere" clean indoor air campaign has been implemented throughout the state. Coalition members have worked with public

and private decision makers on the state and local level to promote the adoption of policies protecting nonsmokers from secondhand smoke. As a result, work sites, restaurants, malls, schools and health care facilities have implemented nonsmoking policies, and local governments have promoted or adopted nonsmoking ordinances.

Youth access to tobacco

The issue of youth access to tobacco continues to be one of the most popular activities among coalition members. The successes achieved in Indiana are many. Coalition members mobilized a grassroots support network to defeat tobacco industry sponsored legislation in the 1995 Indiana General Assembly that would have weakened the state's current youth access laws. Youth advocate groups are being developed in all local coalition areas, empowering youth to take an active role in protecting themselves and their peers from tobacco advertising and promotions and illegal sales to underage youth. Indiana ASSIST has cultivated strong allies for the enforcement of youth access laws. Educational programs and compliance checks conducted by law enforcement officials have elevated the awareness and concern for sales of tobacco to underage youth among retailers, citizens, law enforcement officials and health care professionals. As a result, illegal sales of tobacco to youth are decreasing in some areas of the state.

Advertising and promotions

Indiana ASSIST has been active in creating and promoting exciting, positive health messages on radio,

television, in newspapers and magazines and on billboards and bus placards. Recent activities include efforts to restrict advertising and promotion of tobacco products. While electronic advertising of tobacco products is prohibited, tobacco companies spend millions of dollars in promotions and sponsorships. The events promoted and sponsored by the tobacco companies often receive considerable media coverage, allowing the tobacco logo, image and name to be broadcast, circumventing the electronic media advertising ban. In Indiana, tobacco company promotions and sponsorships are visible and powerful influences at major sporting events, concerts, fairs and festivals.

Youth are especially susceptible to the images promoted in tobacco advertising. Tobacco advertisements suggest product use can be correlated to success, popularity and a positive appearance. Efforts to reduce the appeal of tobacco advertising to youth are especially timely in light of the proposal from President Clinton and the Food and Drug Administration to regulate tobacco advertising and promotions.

Taxes

Raising the price of tobacco continues to be the most effective means of reducing tobacco use, especially among youth. For every 10% increase in price, approximately 4% of adults and up to 12% of youth will quit using tobacco. Indiana's excise tax on tobacco is lowest among states within the Great Lakes region. An intensive educational, public relations, marketing and advocacy campaign is needed in Indiana to mobilize

the majority of voting-age citizens to encourage their legislators to sponsor and/or support an increased tobacco tax.

The role of health care providers in ASSIST

Health care professionals are influential leaders within their communities. Indiana physicians and other health professionals are actively involved with ASSIST in a variety of roles. Staff and member physicians of the Indiana State Medical Association (ISMA) have contributed greatly to ASSIST policy efforts. They have provided testimony on pending legislation during the Indiana General Assembly. Locally, they have testified in support of tobacco control ordinances or opposed measures that would expose Hoosiers to the risks of tobacco use. The ISMA House of Delegates has adopted resolutions to restrict youth access to tobacco and to encourage stronger tobacco control legislation. In addition, the ISMA House of delegates sent their resolution to the American Medical Association's House of Delegates for adoption.

Indiana ASSIST and family physicians have joined forces to educate young school children on the dangers of tobacco use, the deception of tobacco advertising, and the benefits of smoke-free environments. Through the "Tar Wars" program, physicians provide educational programs to fourth and fifth grade students in Indiana. Afterwards, students are encouraged to submit an effective tobacco prevention poster in a local poster contest. Winners at the local level were submitted to a statewide contest. The state's winning poster was submitted to

the national contest. The artist and chaperon attended the national "Tar Wars" poster contest.

Physicians and other health professionals are invaluable resources to ASSIST coalitions. They serve as technical experts, conduct media interviews to promote tobacco prevention and control messages, provide testimony and serve as highly visible advocates for tobacco prevention and control activities.

Indiana ASSIST coalitions offer resources for their communities. Coalition members, especially health care professionals, are often called upon to conduct educational programs within the community. Training, technical assistance, educational materials and speakers bureaus are a few of the tobacco prevention and control resources available to physicians, schools, community groups, work sites, policy makers and citizens.

Indiana ASSIST coalition

members have realized the effect of their efforts. Coalition members were instrumental in the defeat of legislation promoted by the tobacco industry. Staff and coalition members experienced firsthand the power of grassroots initiatives in the democratic process.

As the Indiana ASSIST Project enters its fifth year, staff and coalition members have renewed their commitment for working through schools, community groups, work sites and the health care setting to promote tobacco-free, healthy lifestyles. Plans are in place to increase coalition membership, to expand beyond those traditionally involved in tobacco control efforts and include all segments of the community. Coalition members are looking to build alliances with key influential individuals and organizational representatives to build support for the ASSIST

objectives.

For more information on the Indiana ASSIST Project or to learn how you can become involved at the state or local level, call (317) 383-6259 or (317) 872-4432. □

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Tobacco control and the AMA: Health, policy and politics

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Since 1847, the mission of the American Medical Association (AMA) has been "to promote the science and art of medicine and the betterment of public health." In the context of public health, tobacco use prevention and control has become an increasingly important part of the AMA's strategy. This article briefly describes a history of the AMA in tobacco control and suggests some ways that state medical societies might become more involved.

The first mention of tobacco in the *Digest of Official Actions of the AMA House of Delegates* comes in a 1960 resolution for the AMA to "clarify its position regarding the harmful effects of tobacco ... and take a lead position in an educational campaign aimed at the youth of the United States." During the early 1960s, the Council on Drugs was asked to study the harmful effects of tobacco. Because the study was in progress, the House deferred statements on the health hazards of tobacco use, pending the report's conclusions. A 1963 announcement from the board of trustees called for more documentation of the health risks involved in tobacco use, noting that the surgeon general's committee was considering the question. In 1965, however, following release of the landmark report from the surgeon general, the AMA did not adopt a proposed resolution endorsing the report, having made a statement in 1964 that "recognize[d] a significant relationship between cigarette

smoking and the incidence of lung cancer ... and that cigarette smoking is a serious health hazard." Unlike the surgeon general's committee, the AMA did not state that a causal effect between smoking and lung cancer was present.

In January 1964, the AMA Education and Research Foundation (AMA-ERF) entered into a five-year agreement with six tobacco companies to conduct a comprehensive program of research on tobacco and health. The Council on Drugs study was halted because of this agreement, as well as the belief that the surgeon general's report would duplicate any council findings. The AMA-ERF received \$10 million for the project and appointed a scientific research committee to help oversee the project, several members of which were also on the surgeon general's committee. Between 1964 and 1975, 844 researchers in the United States and 13 foreign countries produced 795 publications on the relationship between tobacco and health. Generally speaking, the findings and conclusions of the research concurred with the work of the surgeon general's committees and reports — that tobacco use is causally related to a host of diseases resulting in premature morbidity and death.

Until the early 1980s, AMA resolutions only called upon physicians to educate the public about tobacco and health and to "take a strong stand against tobacco" without very many specifics. In 1970, the AMA began to be more directive, calling for an end to federal tobacco subsidies

and, for the first time, for a ban on all tobacco advertising. Only 12 resolutions on tobacco passed the House between 1970 and 1979.

In the early 1980s, the picture changed dramatically, with the action of a small band of delegates to the House from the student and resident sections. The volume of resolutions increased markedly; the actions called for were much more pointed and action oriented; and the AMA itself began to act in ways that supported tobacco control principles, such as divesting its tobacco stock holdings and publicly calling for a total ban on tobacco advertising.

Currently, more than 140 resolutions have been passed by the House of Delegates on tobacco issues, covering a wide spectrum in tobacco control and ranging from protection of the nonsmoking majority from the hazards of indoor tobacco smoke pollution to youth access issues and international trade. The AMA supports a \$2 increase in the federal excise tax on cigarettes and called in 1989 for FDA regulatory authority over tobacco products. The AMA has officially labeled nicotine an addictive drug and issued *Guidelines for the Diagnosis and Treatment of Nicotine Dependence* in 1994. It has initiated a variety of activities to educate physicians and the public about tobacco and health, including administering several grants from the Robert Wood Johnson Foundation on tobacco policy intervention.

The *Journal of the American Medical Association* (JAMA) emerged during this period to become the leading scientific journal dealing with tobacco and

health, with several tobacco "theme" issues since 1980. The July 19, 1995, issue of *JAMA* was devoted to articles on tobacco industry documents that, for the first time in a peer-reviewed journal, showed the industry "through a keyhole" regarding what one company knew about nicotine, tobacco and cancer; how it conducted research; and how it used its attorneys to hide the evidence of its misdeeds. The entire board of trustees signed a very strongly worded editorial in this historic theme issue, with an unequivocal statement of the AMA's position on tobacco.¹

An example of this new kind of involvement in tobacco control comes in tobacco litigation. In 1993, the AMA wrote legal briefs in support of the plaintiff in the *Cipollone* case that came before the U.S. Supreme Court, a tobacco products liability suit brought by the estate of a deceased smoker. More recently, the AMA has announced its willingness to support lawsuits brought by states against the industry to recover Medicaid costs the state has paid over the years. Currently, Mississippi, Minnesota, Florida, West Virginia and Maryland have filed or announced such suits.

State medical society involvement
The AMA recognizes that success in tobacco control is more likely to occur at the state and local level, especially considering the powerful influence of the tobacco industry in Washington. The House of Delegates not only accepts policy recommendations from state medical societies, but has passed several statements calling for action on their part. State societies are encouraged to:

- Strengthen state and local laws that govern lobbying influences by the tobacco industry, and be vigilant for tobacco industry influence when local tobacco control ordinances are challenged (AMA Policy 490.938);
- Develop lists of pharmacies that do not sell tobacco products, distributing this to members; publicly commend pharmacies that do not sell tobacco products and encourage patients to patronize them (490.946);
- Advise municipalities and school districts against use of "educational" materials from the tobacco industry (either for retail merchants or for schools) (490.945);
- Attempt to raise the state excise tax on tobacco products (490.948);
- Support legislation banning smoking in public places, including businesses, restaurants, schools, athletic stadiums, public transportation and health care facilities (505.974, and other related policies);
- Divest any and all tobacco stock holdings (490.950);
- Develop, along with county medical societies, strong anti-tobacco campaigns and actively reach out to the voluntary health associations to participate in tobacco control coalitions (490.953); and
- Sponsor efforts that will help physicians and medical students more effectively counsel patients to stop smoking (490.963).

In general, four key areas exist for policy development in tobacco

control: curbing youth access to tobacco, protecting the public from the hazards imposed by environmental tobacco smoke, increasing excise taxes and restricting tobacco industry advertising and promotion. In some states, medical societies have created tobacco control subcommittees as an official part of the society structure (North Carolina, Texas and Indiana) to propose policy and develop action plans designed to impact tobacco use. In coordination with the lobbying and educational activities traditionally taken on by most state societies, such efforts can be very productive in targeting tobacco. Just as in this issue of *Indiana Medicine*, other states have crafted tobacco control "theme" issues (North Carolina, January 1995; Maryland, October 1995; and Florida, February 1996).

Involvement with other groups such as the local chapters of the American Cancer Society, the American Lung Association, the American Heart Association, hospital associations, dental societies and state chapters of medical specialty societies is also very fruitful. Most states have a tobacco control coalition that has these groups, among others, as members. Active participation of the medical society at both state and county levels makes it much more likely that these coalitions will succeed in their plans. In several states, the medical society has assumed the coalition leadership role.

Finally, a word about action and activism. For too long, organized medicine has been accused of armchair activism – of only being involved in traditional activities that are safe, comfortable and avoid risk. The recent revela-

tions about tobacco company deceit in *JAMA* paint a picture of a rogue industry that demands a response from organized medicine at all levels. It is too little, too late to be content with generic smoking cessation advice to our patients or sponsoring a health booth at the county fair.

We must take our message outside the walls of the office and hospital, to confront the industry and its apologists directly. Physicians in Kansas and Illinois, for example, have shown their mettle by picketing tobacco industry-sponsored sports events. We can also act by making tobacco a campaign issue at a town meeting during the next Congressional elections or writing letters to the editor.² It only takes one determined physician to counter the misinformation spread by tobacco industry hired guns at a city

council meeting on clean indoor air regulations. A county medical society can make youth access to tobacco a special priority, and shepherd a local ordinance through the system.

The potential to make a difference is present if we take the time to get involved.^{3,4} Organized medicine and its members can play a key role in the tobacco wars. Together, the AMA and its partners in the states have an opportunity to make a difference, working to ease the human and economic toll taken by tobacco. As the Massachusetts tobacco control program motto states it so well, "It's time we made smoking history." □

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Trends of public opinion on tobacco use and public policy

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According to the U.S. Department of Health and Human Services, the use of tobacco accounts for approximately 419,000 deaths each year among American people. It contributes substantially to deaths from cancer, cardiovascular disease, lung disease, low birth weight, and other problems including fires and burns.^{1,2} Thus, cigarette smoking is known as the single most preventable cause of death.

Unfortunately, smoking cigarettes is both psychologically and physiologically addictive. Consequently, most regular adult smokers started smoking by the time they graduated from high school. Thus far, we have learned that prevention through health promotion and education and empowerment of individuals are important weapons to fight against major health risk factors such as tobacco. Effective public education requires that it be complemented with legislative and advocacy efforts.

With skyrocketing health care costs and recent recognition of disease prevention and health promotion through education as an integral part of cost containment, it is critical for leaders in the health profession to seize the opportunities and further promote health education. Often legislative and public policy efforts are influenced by public opinion. Stable public opinion is an important reassurance to legislators for

Abstract

This study examined the trends and stability of public opinion related to tobacco use and raising tobacco taxes in Indiana. Using a structured questionnaire, a sample of 800 households was randomly selected, and the adults were interviewed by telephone in 1989, 1990 and 1992 by the Indiana University Center for Survey Research. The data were subjected to descriptive and chi-square statistical procedures.

The results of the study indicate that more than 80% agreed that secondhand smoke is a health threat, and the opinions remained practically stable for the duration of the study. Most respondents agreed that public places should be required to have nonsmoking areas. Further, most people favored a tax increase on cigarettes, and there was an upward trend toward more people favoring a tax increase in recent years. It was concluded that the tax on tobacco should be increased for public health reasons. □

passing appropriate bills on tobacco use and related public policies.

Tobacco industries annually spend billions of dollars to promote tobacco use and to influence public opinion. They also lobby legislators and public officials extensively in order to block anti-smoking bills or to support their desirable bills. To combat tobacco industries' promotional activities, public health professionals often lack the resources needed to develop quality educational intervention and lobbying strategies.

Despite this imbalance of resources, public health education has made significant progress in reducing smoking prevalence rates in the past three decades.¹ The smoking rate has dropped from about 45% in 1954 to less than 30% in the late 1980s.³ There are more

smoke-free public buildings and restaurants than ever before. Local communities are better informed about the consequences of tobacco use. Yet, extensive, coordinated and comprehensive efforts are required to impact a legislative agenda.

As expected in a democratic society, public opinion plays a major role in passing or not passing bills.^{4,5} Stability of public opinion is an important reassurance to legislators for passing appropriate bills related to tobacco use and its taxes. This study examined the stability of public opinion related to tobacco use and raising tobacco taxes in Indiana.

Methodology

The American Lung Association of Indiana provided two grants to sponsor, in part, this project. A structured questionnaire was

developed, field tested and revised for the data collection procedures. A sample of 800 households was randomly selected, and the adults were telephone interviewed in 1990 and 1992 by the Indiana University Center for Survey Research. Additionally, a comparable study with a few similar questions was conducted by the Indiana State Board of Health in 1989. Thus, the 1989 data were obtained, pooled and compared with 1990 and 1992 data for the purpose of revealing public opinion trends on tobacco use and its related taxes. The three sets of data were subjected to descriptive and chi-square statistical procedures.

Findings

An examination of the demographic variables of the three sets of data provided evidence that the samples reasonably well-represented the Indiana adult population by gender, age and socioeconomic composition. The subjects' ages varied from 18 to older than 65 years, and most were between 30 to 44 years of age. Almost equal numbers of male and female adults participated in the study.

The results have a margin of error of 4% at the 95% confidence interval. Smoking prevalence for the four-year period remained relatively stable, varying from 27% to 29%. The difference is not significant and probably due to random error. Consequently, the percentage of former smokers remained unchanged (about 24%) and the never-smoked group stayed around 48%.

Average daily consumption of cigarettes by current smokers was interesting. The data revealed a marginal upward trend of daily consumption. In other words, the

Would subject agree or disagree that restaurants, lobbies and public places should be required to have nonsmoking areas?

(Reported in percentages and n=800)

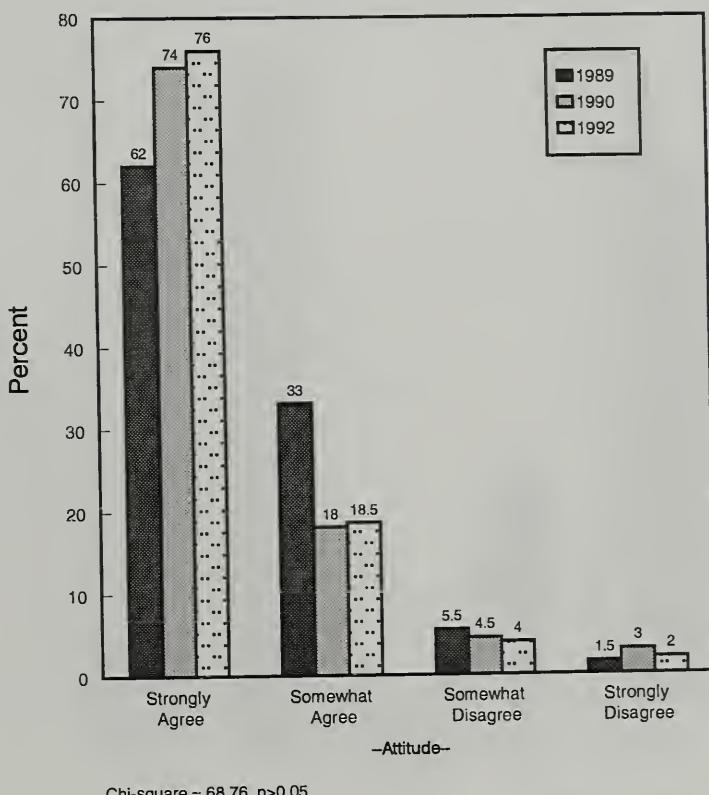


Figure 1

trend of current smokers was to smoke slightly more cigarettes per day than in previous years. This may indicate that the public health professionals have not been highly effective in reducing daily use of cigarettes among smokers.

The subjects were asked if they agreed or disagreed that being exposed to secondhand smoke from other people's cigarettes is a health threat. The results of the study indicate that more than 80% agreed that secondhand smoke is a health threat, and the opinions

remained practically unchanged for the duration of the study. The subjects were also asked if they agreed that restaurants, lobbies and other public places should be required to have nonsmoking areas. As Figure 1 shows, most respondents agreed that public places should be required to have nonsmoking areas. Further, more people strongly agreed with this requirement in recent years as compared to the previous years. This positive trend is statistically significant ($p<.01$).

Would subject favor or oppose a tax increase on cigarettes if the funds were used for educational programs on tobacco-related diseases?
 (Reported in percentages and n=800)

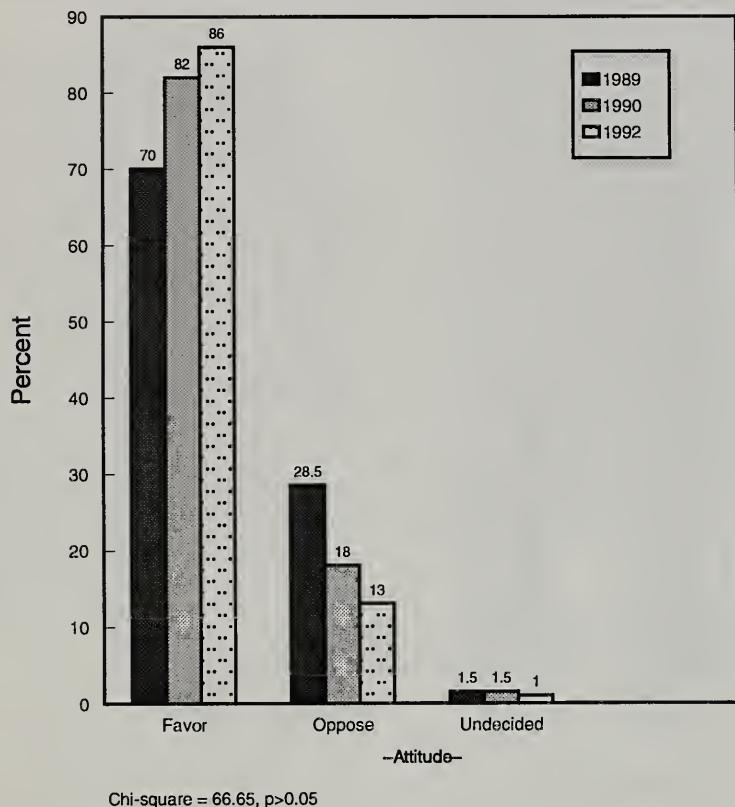


Figure 2

The subjects were asked if they would favor or oppose a tax increase on cigarettes if the funds were used for educational programs on tobacco-related diseases. As Figure 2 shows, most people favored a tax increase on cigarettes during the four-year period. Further, there is an upward trend toward more people favoring a tax increase in recent years, and this positive trend is statistically significant ($p<.01$).

The subjects were also asked if they would favor or oppose a tax

increase on cigarettes if the funds were used for research on tobacco-related diseases. The results were almost similar to Figure 2. Most respondents (more than 70%) favored a tax increase on cigarettes if the funds were used for research on tobacco-related diseases. Of those who favor a tax increase, most (more than 60%) consistently supported a tax increase of six cents or more per pack of cigarettes.

The respondents were also

asked if they would favor or oppose legislation that would fund educational programs to help prevent young people from starting to smoke. The data for this question were collected only in 1990 and 1992. For the three-year period, nearly 90% of the respondents favor such legislation. Those individuals were asked a follow-up question as to how they would prefer the government pay for such programs.

As Figure 3 shows, about 80% of the respondents indicated cut spending, about 10% indicated raise taxes, and less than 5% indicated borrow money.

Discussion and conclusion

The findings of this longitudinal study revealed that there was overall strong support for public policy and legislative effort for restricting smoking in public places for health and safety reasons. The public has become increasingly aware of the dangers of secondhand cigarette smoke. Further, most people in Indiana favored a tax increase on cigarettes if the funds were used for education and research related to tobacco use and tobacco-related diseases. The public opinion related to these topics was at least stable or tended to be more favorable toward restricting tobacco in recent years. This may indicate that despite intensified promotional campaigning by the tobacco industries, public health education slowly but surely has positively impacted public opinion on tobacco use and its taxes.

The results of this study compared favorably to the recent national Gallup Poll reported in 1994 Public Health Forum.³ About 30% of the national sample favored a ban on smoking in public places,

and more than 60% favored setting aside areas for smokers. Also, an overall 78% thought secondhand smoke was very or somewhat harmful to adults. The same Gallup report revealed that the percentage of current smokers has dropped from 40%, to the lowest ever of about 25% in 1995. The following recommendations are offered to public health professionals and legislators:

1. A similar public opinion survey should be conducted periodically, and the results publicized in state journals so public health professionals can develop effective intervention strategies.
2. Recognizing the serious consequences of secondhand smoke, all policy makers should ban or severely restrict smoking in all public places.
3. It is estimated that every pack of cigarettes smoked costs every taxpayer \$2 in medical care and lost productivity. Thus, legislators should raise the tax on tobacco for three reasons. First, increased cost of cigarettes will more likely discourage nonsmokers from starting to smoke. Second, the current smokers will more likely reduce their daily consumption. Finally, the smokers will pay their share for the medical costs and lost productivity to the public general fund. □

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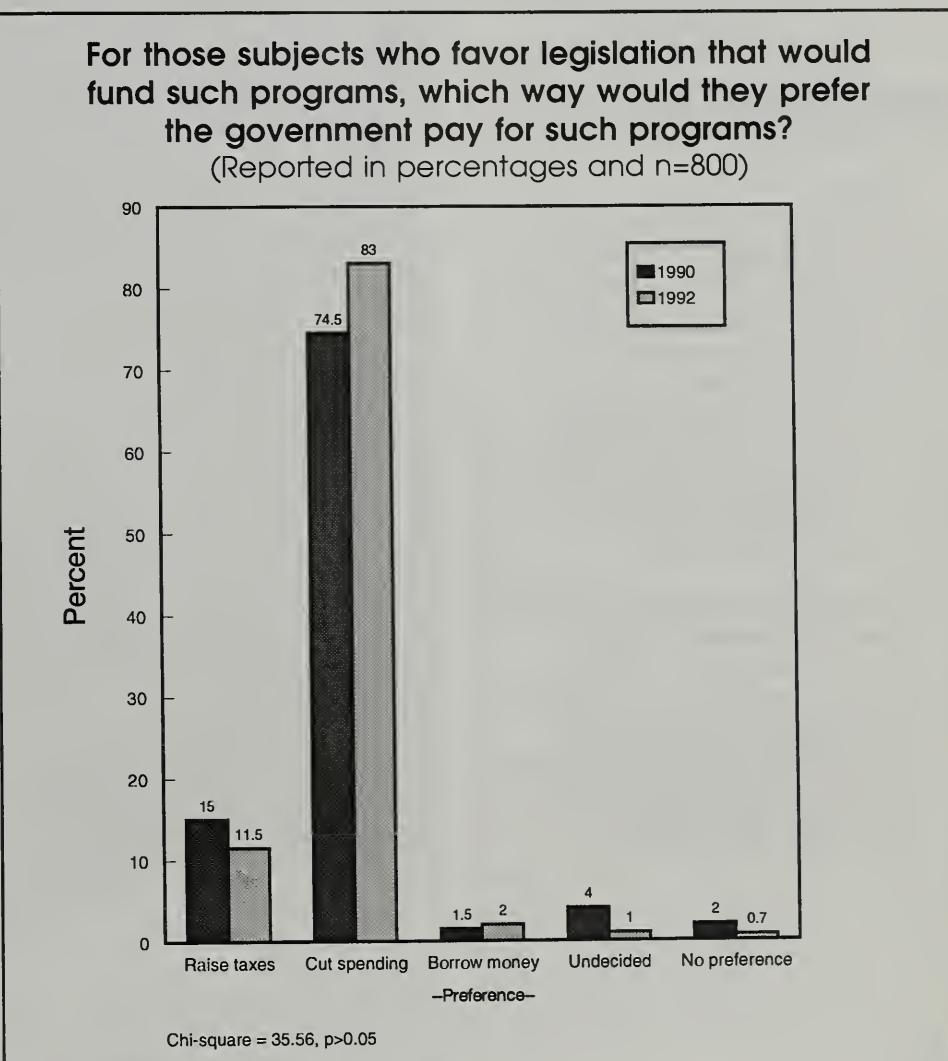


Figure 3

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ISMA creates tobacco control task force

Jerome Melchior, M.D.
ISMA president

On Oct. 20, 1995, the ISMA House of Delegates Reference Committee on Community Health Issues adopted Resolution 95-13 that called for the creation of a Tobacco Control Task Force (TCTF). ISMA President Jerome Melchior, M.D., appointed members to the task force and charged them to address the following areas in Resolution 95-13.

1. Promote public policy that will especially prevent youth access to tobacco;
2. Support smoke-free indoor air legislation and regulation at local, state and national levels;
3. Enhance physician education and awareness, especially

training of medical students and residents in tobacco control;

4. Provide training for practicing physicians to be able to teach smoke cessation skills to others;
5. Publicize the importance of tobacco control through articles for *Indiana Medicine* and *ISMA Reports*;
6. Collaborate with other organizations such as the Indiana State Department of Health, Indiana University School of Medicine, and Project ASSIST (American Stop Smoking Intervention Study); and
7. Contribute to the ISMA policy on tobacco control by sponsoring or supporting resolutions regarding tobacco control.

The ISMA TCTF met for the

first time in early 1996. Task force members are Stephen Jay, M.D., chairman; Robert Walker, M.D., Bloomington; Dennis Stone, M.D., Columbus; Nancy Griffith, M.D., New Castle; Nicki Turner, M.D., Muncie; Gerald Wehr, M.D., Lafayette; and William Mohr, M.D., Kokomo. It will develop a mission and select priority goals. In view of the magnitude of tobacco use in Indiana, the task force will have an enormous challenge before it. But, through the coordinated efforts of the ISMA and other concerned organizations, progress in tobacco control will be made. The active interest and involvement in the TCTF work among Hoosier physicians will be key to its success. We need to hear from those who want to help. □

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Tobacco use by Indiana children and adolescents

William J. Bailey, M.P.H.
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Tobacco use by children and adolescents continues to be a major health crisis, despite more than 30 years of publicity about the health consequences of cigarette smoking.¹⁻⁴ While there has been a significant decline in overall smoking rates since the publication of the first surgeon general's report on smoking and health in 1964,¹⁻⁴ the use of tobacco by children and adolescents leveled off in the early 1980's and is now increasing.⁵⁻⁶ More than 1,000,000 Americans begin smoking each year (3,000 per day), and nearly all of these new smokers are under the age of 18.^{2,4} More seriously, children and adolescents in Indiana smoke at rates 20% to 50% higher than do children and adolescents nationally.⁷

As if the health consequences of tobacco use were not serious enough by themselves, tobacco use plays an important role in the decision to use other drugs. Youthful cigarette smokers are three to five times more likely to abuse alcohol and 10 to 90 times more likely to abuse other drugs as are nonsmokers.^{2,8-10}

This article describes the findings of a five-year longitudinal study of tobacco use by Indiana children and adolescents in grades six through 12.

Method

Subjects — Data were derived from annual surveys of drug use by students in grades 6 through 12, coordinated by the Indiana Prevention Resource Center at Indiana

Abstract

Data from a five-year, longitudinal survey of cigarette smoking and smokeless tobacco use by Indiana children and adolescents are presented. A four-page, self-contained questionnaire was used to collect anonymous information from more than 240,000 students in grades six through 12. Indiana students reported prevalence levels 20% to 50% higher than levels reported in comparable national surveys. Perceived risk of physical or psychological harm was the single best statistical predictor of whether or not a student would choose to use tobacco. Tobacco use was statistically linked to increased use of illicit drugs. Physicians can play a powerful role in influencing a patient's perception of the risks associated with cigarette smoking. □

University.⁷ Since 1991, more than 230,000 students from 745 schools in 209 school corporations have participated in the annual surveys. In 1995, data were collected in 85 separate community or school corporation surveys conducted in 250 schools throughout Indiana. These surveys yielded 63,631 usable questionnaires, from 66,020 students present on the day of the survey. The participation rate was 96.4% (641 refused to participate or turned in blank forms, 1,393 forms were unusable, and 355 were rejected due to error checking protocols).

The massive sample size is required to provide large enough local samples to generate usable data for local purposes. In the 1991 survey, 23,319 usable surveys were collected; in 1992, 20,629 usable surveys were collected. In 1993 the number of schools participating increased dramatically, resulting in 90,586 usable surveys being collected, and in 1994, 81,732 usable surveys were collected.

While identical populations were not sampled each year, the populations are comparable, were selected for geographic and community-size balance in an identical manner, and should produce comparable data.

Schools are selected in a three-stage purposive stratified sampling process to yield a sample that is representative of the state as a whole and is stratified by grade and purposively selected taking into account geographic balance, ethnic diversity and community size. Schools and communities are purposively selected to assure proportional representation from the various parts of the state, using 10 planning regions established by the Governor's Commission for a Drug-Free Indiana, and to assure adequate sampling of minority populations and of students from rural areas. Schools then are assigned a quota designed to yield appropriate numbers of subjects in each grade. Intact classes are randomly selected as sampling

Table 1

Prevalence of tobacco use by Indiana children and adolescents
Grades six to 12, spring 1995
Percent of students in each grade reporting use

	Number	Cigarettes	Smokeless Tobacco		
		Percent	95% C.I. *	Percent	95% C.I. *
<u>Sixth Graders</u>	9,958				
Lifetime use		27.6	(26.5-28.7)	7.7	(7.2-8.2)
Annual use		18.3	(17.6-19.0)	5.8	(5.3-6.3)
Monthly use		9.3	(8.8-9.8)	3.3	(2.8-3.8)
Any daily use		4.0	(3.6-4.4)	< 1.0	< 1.0
Daily use of 1/2 pack or more		1.9	(1.6-2.2)		
<u>Seventh Graders</u>	7,753				
Lifetime use		39.8	(38.7-40.9)	14.6	(14.0-15.2)
Annual use		29.8	(27.9-30.7)	11.9	(11.3-12.5)
Monthly use		17.7	(17.1-18.3)	7.1	(6.6-7.6)
Any daily use		8.8	(8.3-9.3)	1.1	(0.8-1.4)
Daily use of 1/2 pack or more		4.4	(4.0-4.8)		
<u>Eighth Graders</u>	12,868				
Lifetime use		52.4	(51.0-53.8)	19.2	(18.6-19.8)
Annual use		41.4	(40.6-42.0)	15.4	(14.9-15.9)
Monthly use		26.3	(25.5-27.1)	9.3	(8.8-9.8)
Any daily use		14.9	(14.4-15.4)	2.1	(1.7-2.5)
Daily use of 1/2 pack or more		8.4	(7.9-8.9)		
<u>Ninth Graders</u>	7,437				
Lifetime use		58.7	(57.4-60.0)	26.2	(25.5-26.9)
Annual use		46.2	(41.4-48.0)	20.8	(20.2-21.4)
Monthly use		30.8	(30.2-31.4)	13.2	(12.7-13.7)
Any daily use		18.4	(17.8-19.0)	4.1	(3.7-4.5)
Daily use of 1/2 pack or more		11.2	(10.6-11.8)		
<u>10th Graders</u>	11,181				
Lifetime use		61.8	(60.6-63.0)	28.7	(28.0-29.4)
Annual use		48.9	(48.0-50.8)	22.2	(21.6-22.8)
Monthly use		34.4	(33.6-35.2)	13.8	(13.2-14.4)
Any daily use		22.4	(21.9-22.9)	5.0	(4.6-5.4)
Daily use of 1/2 pack or more		14.6	(14.1-15.1)		
<u>11th Graders</u>	6,280				
Lifetime use		66.5	(65.2-67.8)	32.2	(31.2-33.2)
Annual use		53.3	(52.3-54.3)	23.9	(23.1-24.7)
Monthly use		39.3	(38.3-40.3)	15.4	(14.8-16.0)
Any daily use		26.0	(25.0-27.0)	6.3	(5.7-6.9)
Daily use of 1/2 pack or more		17.2	(16.4-18.0)		
<u>12th Graders</u>	8,554				
Lifetime use		67.9	(66.9-68.9)	35.8	(34.9-36.7)
Annual use		54.5	(53.5-55.5)	25.9	(25.1-26.7)
Monthly use		40.6	(38.8-41.4)	16.5	(16.0-17.0)
Any daily use		27.6	(26.9-28.4)	7.6	(7.1-8.1)
Daily use of 1/2 pack or more		18.9	(18.4-19.4)		

* 95% confidence interval

Table 2

Trends in tobacco use by Indiana children and adolescents - 1991 to 1995
Percent of students in each grade reporting use

	1991	1992	1993	1994	1995	Change 94/95
Cigarette Smoking						
<u>Sixth Grade</u>						
Lifetime use	32.2	33.2	29.2	28.8	27.6	-1.1ns
Annual use	20.9	22.6	19.0	19.5	18.3	-1.2ns
Monthly use	10.7	12.9	8.5	10.0	9.3	-0.7ns
Any daily use	3.9	4.8	3.4	4.3	4.0	-0.3ns
Daily use of 1/2 pack or more	2.1	3.0	1.5	2.0	1.9	-0.1ns
<u>Seventh Grade</u>						
Lifetime use	43.0	42.7	38.6	40.1	39.8	-0.3ns
Annual use	31.7	31.5	28.4	29.7	29.8	+0.1ns
Monthly use	16.8	16.9	14.5	16.9	17.7	+0.8ns
Any daily use	8.6	8.3	7.3	8.6	8.8	+0.2ns
Daily use of 1/2 pack or more	4.8	4.7	3.9	4.4	4.5	+0.1ns
<u>Eighth Grade</u>						
Lifetime use	52.1	55.0	50.0	51.3	52.4	+1.1ns
Annual use	39.1	41.8	37.9	39.6	41.4	+1.8s
Monthly use	22.0	24.8	21.1	24.2	26.3	+2.1s
Any daily use	13.2	13.7	11.8	13.8	14.9	+0.9ns
Daily use of 1/2 pack or more	7.7	9.4	6.7	7.2	8.4	+1.2s
<u>Ninth Grade</u>						
Lifetime use	54.2	58.2	56.5	57.4	58.7	+1.3ns
Annual use	39.4	45.9	43.6	45.5	46.2	+0.7ns
Monthly use	22.6	28.4	26.2	29.4	30.8	+1.4ns
Any daily use	13.6	17.2	16.0	18.3	18.4	+0.1ns
Daily use of 1/2 pack or more	9.0	11.4	9.9	11.7	11.2	-0.5ns
<u>10th Grade</u>						
Lifetime use	61.6	62.6	60.8	61.5	61.8	+0.3ns
Annual use	47.8	48.7	46.8	48.0	48.9	+0.9ns
Monthly use	31.0	31.3	30.4	33.0	34.4	+1.4ns
Any daily use	18.7	20.1	19.0	21.9	22.4	+0.5ns
Daily use of 1/2 pack or more	12.2	13.4	12.3	14.4	14.6	+0.2ns
<u>11th Grade</u>						
Lifetime use	63.0	65.5	64.7	64.5	66.5	+2.0s
Annual use	48.3	51.3	51.0	50.5	53.3	+2.8s
Monthly use	29.9	34.9	33.7	34.4	39.3	+4.9s
Any daily use	19.3	22.6	22.0	22.8	26.0	+3.2s
Daily use of 1/2 pack or more	13.8	15.7	15.01	15.3	17.2	+1.9s
<u>12th Grade</u>						
Lifetime use	69.1	69.4	66.4	65.6	67.9	+2.3s
Annual use	69.1	54.3	52.2	51.8	54.5	+2.7s
Monthly use	34.6	36.2	35.6	37.3	40.6	+3.3s
Any daily use	22.7	22.8	23.2	25.1	27.6	+2.5s
Daily use of 1/2 pack or more	16.3	16.0	16.0	17.9	18.9	+1.0s

ns = not significant at p <.05 level

s = significant at p <.05 level

Table 2 (continued)

Trends in tobacco use by Indiana children and adolescents - 1991 to 1995
Percent of students in each grade reporting use

	1991	1992	1993	1994	1995	Change 94/95
Smokeless Tobacco						
Sixth Grade						
Lifetime use	9.2	13.0	8.5	9.0	7.7	-1.3s
Annual use	6.5	10.2	6.4	6.8	5.8	-1.0s
Monthly use	4.1	5.9	3.5	4.0	3.3	-0.7s
Any daily use	<1	<1	<1	<1	<1	
Seventh Grade						
Lifetime use	17.4	16.2	13.9	14.9	14.6	-0.3ns
Annual use	14.4	13.2	10.9	11.7	11.9	+0.2ns
Monthly use	9.7	7.9	6.7	7.5	7.1	-0.4ns
Any daily use	2.6	5.1	1.2	1.7	1.1	-0.6ns
Eighth Grade						
Lifetime use	24.8	26.6	18.9	20.1	19.2	-0.9ns
Annual use	20.1	22.8	14.9	16.5	15.4	-1.1ns
Monthly use	13.7	15.6	9.0	10.6	9.3	-1.3s
Any daily use	4.6	5.1	2.3	2.6	2.1	-0.5ns
Ninth Grade						
Lifetime use	28.0	28.5	24.3	25.8	26.2	+0.4ns
Annual use	23.3	25.1	19.2	20.8	20.8	+0.0ns
Monthly use	14.4	16.1	12.2	13.3	13.2	-0.1ns
Any daily use	5.0	5.4	3.8	4.2	4.1	-0.1ns
10th Grade						
Lifetime use	35.5	32.0	27.9	28.0	28.7	+0.7ns
Annual use	27.3	27.1	21.6	21.8	22.2	+0.4ns
Monthly use	18.1	18.2	13.2	13.6	13.8	+0.2ns
Any daily use	7.6	7.9	4.7	5.2	5.0	-0.2ns
11th Grade						
Lifetime use	35.1	37.3	31.9	31.0	32.2	+1.2ns
Annual use	26.5	28.1	23.5	23.1	23.9	+0.8ns
Monthly use	16.9	19.5	14.4	14.6	15.4	+0.8ns
Any daily use	6.8	9.3	5.8	6.4	6.3	-0.1ns
12th Grade						
Lifetime use	38.0	39.5	34.0	33.9	35.8	+1.9s
Annual use	38.0	20.8	23.8	24.6	25.9	+1.3ns
Monthly use	19.4	21.7	15.4	15.5	16.5	+1.0ns
Any daily use	9.6	10.4	6.9	7.0	7.6	+0.6ns

ns = not significant at p <.05 level

s = significant at p <.05 level

clusters. The sample reasonably well represents the sociodemographic makeup of the state, based upon the 1990 decennial Census of Population and Housing. The 1995 sample consisted of appropriate subsamples from each of the 10 planning regions. The number of African-American respondents and Hispanic respondents also well represented their share of the state's population.

A more detailed description of the sampling procedure may be found on the Indiana Prevention Resource Center's World Wide Web site at URL: <http://www.drugs.indiana.edu/statistics>. Although not true random sampling, the sampling procedure used in this study is comparable to that used in the National High School Survey ("Monitoring the Future" study),⁶ and its massive size (65,000+ participants) and representativeness make it a valuable and reliable sample of the population.

The anonymous written questionnaire was selected for reasons of data quality, cost and time efficiency and effectiveness and prior experience.

Self-administered written questionnaires "were found to produce more complete reporting of drug use ... [particularly] for reporting of more recent use of 'harder' drugs."¹¹ This method is comparatively less expensive than other data collection methods and is feasible with school-aged youth, given the relatively easy access to this population through administration in school settings. With Indiana's relatively strict enforcement of mandatory school attendance laws, more than 98% of the youth population under age 16 may effectively be reached

through school-administered surveys. School drop-out is a significant problem after age 16, and these data reflect only those students still in school. Johnston, O'Malley and Bachman⁶ describe a protocol that can be used to estimate the total prevalence (including the drop-out population) from data such as these.

Instrumentation – The survey used is a four-page, self-contained questionnaire, designed by the Indiana Prevention Resource Center for use in school settings. All of the questions in the prevalence portion of the questionnaire are comparable to the National High School Survey.⁶ The basic portion of each questionnaire is divided into 16 multi-part questions that measure drug use and its correlates. Items were selected to gather data comparable to *Healthy People 2000*¹² standards utilized by the U.S. Public Health Service, so that the resulting data could be used to assess the state's and a community's success at meeting the *Healthy People 2000* target goals.

During development of the survey, the basic questionnaire was reviewed by a panel of experts for content validity, subjected to six months of pilot testing and review by focus groups of school-aged youth and tested for reliability using the test-retest method (correlation coefficient 0.82). A SMOG Index of Readability was calculated to assure readability at the fifth grade level. The survey form is optically scannable, allowing for direct transfer of data from the forms to a computer file, utilizing an NCS Op-Scan 10 reader. The collected data are analyzed using descriptive statistical techniques and

multiple regression through SPSS-X routines operating in a VAX/VMS environment. A more detailed description of the instrument development and reliability testing has been published elsewhere.^{7,8}

Procedures – Each year, all surveys were conducted during a six-week period in the spring so that the high school data would be comparable to the National High School Survey data. Due to the relatively high rates of new drug experimentation during a particular school year, it is necessary to survey all populations at about the same time, to avoid "maturation bias."

Students complete the questionnaire in private and anonymously deposit it in a collection box or envelope to protect confidentiality. No identifying data are collected, except gender, grade in school and ethnic background, and data are processed by a statistical team that has no direct access to the students, to assure anonymity. Students are given the option of declining to participate or of turning in a blank survey instrument. More than 95% of eligible students complete usable surveys at every site. Data collection is supervised by the classroom teachers or a classroom monitor provided by the local school in each school. The procedures for training data collectors and for error checking of the validity of student responses have been published elsewhere.^{7,8}

Results

For the three grades (eighth, 10th and 12th) for which national statistics are available, Indiana students reported significantly higher rates of cigarette smoking

than did students nationally. For example, comparing monthly use in 1994, the latest year for which national data are available, 24.2% of Indiana eighth graders reported smoking at least one cigarette in the month prior to the survey, compared to 18.6% nationally. Indiana tenth graders exceeded the national peers 33% to 25.4%. Indiana twelfth graders exceeded their national peers 37.3% to 31.2%. Comparing daily smoking of a half pack or more, Indiana eighth graders exceeded their national peers 7.2% to 3.6%; Indiana 10th graders exceeded their peers 14.4% to 7.6%; and Indiana 12th graders exceeded their peers 17.9% to 11.2%.^{5,7}

Comparisons of smokeless tobacco use by Indiana students and students nationally yield similar results. When comparing data for 1993 (the latest year for which national smokeless tobacco data are available), Indiana eighth graders exceeded the national rates for smokeless tobacco use in the month prior to the survey 9% to 6.6%; 10th graders exceeded their peers 13.2% to 10.4%; and 12th graders exceeded the national norm 15.4% to 10.7%.^{6,7} Table 1 describes the prevalence of cigarette smoking and smokeless tobacco use by Indiana children and adolescents in 1995, with 95% confidence intervals.

In Indiana, cigarette smoking declined at most grades and for most measures of prevalence from 1991 to 1993. Since 1993, most rates have increased.⁷ Nationally, 1992 showed the low point in prevalence rates, with increases in both 1993 and 1994.⁵ Table 2 details the trend in cigarette smoking and smokeless tobacco use by Indiana children and adolescents from

1991 to 1995.

Johnston, O'Malley and Bachman found that perception of risk of physical or psychological harm was the strongest single predictor of whether or not a student would use any drug. Those believing that smoking one or more packs of cigarettes per day would present a "great risk" of physical harm were much less likely to smoke cigarettes than those who saw "no risk" or "slight risk."⁶ Indiana students who believed daily smoking presented less than "great risk" were more than six times more likely to smoke than those who believed it presented "great risk" (odds ratio=8.33; 95% CI=8.02-8.64).

Three studies⁸⁻¹⁰ previously showed a powerful relationship between cigarette smoking and the use of other drugs. Use of illicit drugs is very rare among children and adolescents who are not regular cigarette smokers. Johnston, Bachman and O'Malley found that high school seniors who smoked were 10 to 30 times more likely to use controlled substances as those who were nonsmokers.⁹ Merrill, Fox, Lewis and Pulver found that students aged 12 to 17 were 5.9 times more likely to use marijuana and 19.3 times more likely to use cocaine than were nonsmokers.¹⁰ In Indiana, we previously reported that 68.2% of students who smoked one or more packs of cigarettes daily smoked marijuana, compared with 1.5% of nonsmokers; 23.8% of smoking students used cocaine, compared with 0.3% of nonsmokers.⁸

Reported rates of use of marijuana, cocaine, amphetamines, tranquilizers, inhalants, prescription narcotics, heroin and anabolic

steroids among Indiana students in grades six through 12 are greater than the rates reported nationally.^{6,7} Almost all of the "excess" use can be explained by Indiana's "excess" rate of cigarette smoking. If the impact excess smoking prevalence is extracted from Indiana's prevalence rates for use of controlled substances, by weighting Indiana students' responses to artificially create the same proportion of smokers and nonsmokers as is found in the national surveys, then Indiana's prevalence rates for controlled substance use do not differ significantly from the national rates at most grades and for most measures of prevalence. Detailed data tables from the Indiana Prevention Resource Center's annual survey of alcohol, tobacco, and other drug use by Indiana children and adolescents may be found on the Indiana Prevention Resource Center's World Wide Web site: URL = <http://www.drugs.indiana.edu/statistics/>

Discussion and comments

Indiana children and adolescents are more likely to use tobacco than are children and adolescents nationally. This increased prevalence will result in disproportionately high health care costs and increased mortality and morbidity in the future – unless steps are taken soon to reduce youthful tobacco use in Indiana. Beyond the health care costs associated with tobacco use itself, youthful cigarette smoking is statistically linked with massive increases in the risk of using illicit drugs. Cigarettes and smokeless tobacco act as so-called "gateway drugs" that can serve as almost essential precursors to the use of illicit drugs. The

surgeon general has hypothesized that the mechanism by which cigarette smoking impacts upon future use of other drugs is an interaction of multiple and simultaneous mechanisms.² While the mechanism may not yet be fully explained, the impact is clear. Indiana's increased rate of youthful cigarette smoking is correlated with increased rates of illicit drug use.

A student's perception of the risk of physical or psychological harm is the best known statistical predictor of use of alcohol, tobacco or other drugs. It is a more powerful influence than peer or social pressures.⁶ Physicians can play a powerful role in helping to establish an appropriate level of perceived risks associated with tobacco use. Proactively, they can educate their patients and communities about the health consequences of cigarette smoking and other tobacco use. Reactively, they can counsel youthful patients who smoke about future and present health consequences. Linking a youthful patient's present symptoms of upper respiratory problems, cardiovascular disease, hypertension and other health problems to the patient's cigarette smoking can greatly influence that patient's perception of the risk of smoking cigarettes.

Physicians also may use a youthful patient's cigarette smoking, which should be relatively easy to identify, as a potential identifier of other drug use. The powerful statistical association between youthful cigarette smoking and illicit drug use should serve as a warning for the physician who has physical evidence of a patient's tobacco use. This

evidence opens an opportunity to counsel these patients and reveals a need to inquire about illicit drug use. □

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Effects of tobacco use on the health of Indiana citizens

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Lung cancer is the most common and most preventable cancer in Indiana.¹ No single measure is known that would have as great an impact on the mortality and morbidity attributable to cancer as a reduction or elimination in the use of tobacco. It is estimated that 85% of all deaths from lung cancer are a consequence of smoking. For men, approximately one of every four deaths is attributable to smoking.² While not as great as for men, the incidence of lung cancer in women has climbed at an alarming rate. This increase is clearly attributable to the increase in the prevalence of smoking.³

In Indiana, smoking was the primary cause of nearly one in five deaths in 1989.² Lung cancer and heart disease account for more than half of the deaths attributed to smoking in Indiana. Lung cancer accounts for the highest number of smoking-related deaths in a single disease category and occurs most often in people over the age of 50 who have long histories of cigarette smoking.²

Behavioral Risk Factor Surveillance System

Data are available on the trends of cigarette smoking in adults who reside in Indiana through the Indiana Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is a nationwide random-digit-dial telephone survey of adults that monitors data on the prevalence of cigarette smoking,

Abstract

In Indiana, the lung cancer mortality rate is almost equal to the incidence rate. The mortality rate from lung cancer in men is almost four times higher than for any other cancer. In women, the mortality rate is 20% higher than the mortality rate for breast cancer. In Indiana, black men have the highest death and incidence rates, followed by white men, black women, then white women. There are no early warning signs for lung cancer; there is no recommended screening mechanism; there is no uniformly effective treatment. Unlike most cancers, the primary cause of lung cancer is a well known behavioral factor: smoking. Smoking prevalence is higher in Indiana than in the United States for both men and women. □

use of smokeless tobacco and other lifestyle issues. These sample-based data are adjusted to the age-sex-race distribution of the adult population of Indiana.³

National BRFSS data are compiled and analyzed by the Centers for Disease Control and Prevention (CDC). According to the 1993 BRFSS Summary Report published by CDC, Indiana ranks eighth in the nation in the prevalence of current smokers.⁴ Current smokers are defined as adults who have smoked 100 or more cigarettes and who now smoke on either a regular or irregular basis. During the period of 1990-1994, the prevalence of smoking in both males and females has remained relatively stable. According to BRFSS data, 29% of adult males and 26% of adult females in Indiana currently smoke. Between 1990 and 1994, men reported smoking more than one pack per day at a significantly higher rate than females. Most women who smoked reported smoking one or fewer packs per day.³

The prevalence of current smoking does not differ significantly between blacks and whites. The prevalence of smoking generally declined with age in those age 35 and older. At all ages except ages 55-64, women smoke at a lower rate than males. There is a clear age-related decline in the proportion of male smokers who still smoke. This may reflect an increase in successful smoking cessation with increasing age. There also may be a "survivorship" component in that many long-term smokers tend to die at an earlier age than their counterparts who quit smoking. The proportion of women smokers who have quit shows a less dramatic decline with age. This may reflect the increasing number of young female smokers who have not yet made a decision to quit.³

Environmental tobacco smoke
Involuntary smoking as a consequence of side-stream smoke or environmental tobacco smoke

(ETS) also has been consistently linked to an increased risk of lung cancer. The determination of a causative role for ETS is based on a variety of evidence including: epidemiologic studies that document an increase of lung cancer risk among nonsmokers with increased ETS exposure; studies that detect elevated levels of cotinine, the major metabolite of nicotine in body fluids of nonsmokers; and laboratory analyses that indicate the components of side-stream smoke are qualitatively similar to mainstream

smoke and can act as carcinogens in bioassay studies. Evidence suggests that persons exposed to ETS are subject to a lung cancer relative risk of about 1.3, or 30% greater than those not exposed to ETS.⁵ In addition to its independent carcinogenic effect, cigarette smoke can enhance the effect of other carcinogens such as asbestos and radon.⁵

Lung cancer mortality

During the period from 1986 to 1990, Indiana men ranked 14th in the nation, and Indiana women

ranked 18th, based on the average annual age-adjusted lung cancer mortality rate.² Indiana's rate for men, 84.6 per 100,000 population, is 13% higher than the national rate of 74.9 per 100,000. The lung cancer mortality rate for women in Indiana, 30.8 per 100,000, was 4.4 percent higher than the national rate of 29.5.¹

Age-specific lung cancer mortality rates in Indiana steadily increase as the population ages. Comparing the periods of 1963-1967 and 1983-1987, total lung cancer mortality rates increased by 98% in Indiana but only 80% in the United States as a whole. This increase in mortality is most likely related to the higher rate of smoking in Indiana compared to the nation.¹

In Indiana, lung cancer is the leading cause of cancer deaths for both men and women. In 1987, lung cancer overtook breast cancer as the primary cause of cancer deaths among women. For the period of 1988 to 1992, lung cancer was responsible for 36.8% of the cancer deaths in men, and 21.8% of the cancer deaths in women.¹

Lung cancer mortality rates in Indiana have consistently been higher in men than women; male mortality rates have been consistently higher in Indiana than the United States. Between the periods of 1963-1967 and 1983-1987, mortality rates for men increased by 75% in Indiana versus 56% in the United States.⁶ The rates for men in Indiana for the most recent five-year period (1988-1992) show a much smaller increase and may indicate that the rapid increase in mortality from lung cancer is slowing for men.¹

Female lung cancer rates were lower in Indiana than in the

Table

Lung cancer mortality rates* by race and gender Indiana, 1988-1992

GENDER/RACE	YEAR				
	1988	1989	1990	1991	1992
Total	54.2	54.1	55.5	55.7	55.1
<u>Male</u>					
Total	86.0	84.7	86.1	85.5	81.7
White	83.8	82.7	84.1	83.7	79.5
Black	128.5	128.1	122.7	118.0	124.7
<u>Female</u>					
Total	31.4	32.0	33.2	34.6	35.7
White	31.3	31.7	32.5	34.3	35.4
Black	31.9	38.1	46.3	43.1	39.9
White	53.2	52.9	54.3	54.8	53.8
Black	71.6	75.3	77.7	74.3	75.2

* Average annual rates per 100,000 population, age-adjusted to the U.S. 1970 standard population.

Source: Indiana Cancer Control Plan, 1995.

United States as a whole until 1978 when the trend reversed. A 389% increase was observed in Indiana between the periods of 1963-1967 and 1988-1992 compared to a 314% increase in the United States. Lung cancer is now the leading cause of cancer mortality in women in both Indiana and the United States.⁶

Both white and black men in Indiana experience higher lung cancer death rates than the rates for women of the same race. The rates for black men are the highest overall, followed by white men, then black women. White women have the lowest lung cancer rates in the state. There has been little change in the lung cancer death rates for all men between the periods of 1963-1967 and 1988-1992. Conversely, there has been a marked increase in the rates for both white and black women during this same time period. The increase in the lung cancer death rates for women is expected to continue as a consequence of the increased prevalence of smoking among women.¹

A review of the age-adjusted lung cancer death rates (*Table*) for the years 1988-1992 reveal current data trends. Overall, during the five-year period, the death rates for men have been slowly decreasing, while rates for women have been increasing by approximately 1.1 deaths per 100,000 population per year. For white men, the annual age-adjusted death rate has begun to decrease slightly. In black women, although the lung cancer death rate appears to be decreasing over the last three years, it is expected that this rate will begin to increase due to the prevalence of smoking in younger, black women. For black men, the lung cancer death rate overall appears to be relatively stable, with expected

small year-to-year fluctuations in the data.¹

Lung cancer incidence

Age-specific lung cancer incidence rates in Indiana peak at age 75-79 for men and at age 70-74 for women. The shape of the age-specific rate curve is indicative of a cohort behavioral effect rather than a simple aging effect as seen in most other cancers. Over time, age-specific rates have declined the most in men aged 35-54, and the decline in this age group is responsible for the decline in the overall incidence rate for men. The decline is attributed to a lower prevalence of smoking in men aged 35-54, and as men in this age group get older, the lower incidence rates should reflect this cohort trend in future years.⁷

Nationally, unlike many other cancer sites, lung cancer mortality and incidence rates are quite similar in magnitude. In Indiana, a similar pattern is seen in both incidence and mortality rates by race and gender. Black men have the highest lung cancer incidence (105.5 per 100,000 population) followed by white men (83 per 100,000), black women (40.7 per 100,000), and white women (37.6 per 100,000). The difference between the rates for white and black women is not statistically significant. All other comparisons between race and gender are statistically significant. The similar incidence and mortality patterns reflect the grim prognosis – 13% five-year survival – for victims of lung cancer compared with other cancer sites.⁷

Of all 92 counties in Indiana, only Allen County (42.5 per 100,000) and Elkhart County (31.5 per 100,000) had lung cancer rates that were significantly lower than

the state rate of 57.5 per 100,000. Only Marion County (71.4 per 100,000) had a lung cancer rate significantly higher than the state rate. Rates for the remaining counties were well within the expected normal variation from the state rate given the relative size of the counties and the number of cases diagnosed in county residents.⁷

Stage at diagnosis

The Indiana Cancer Registry categorizes newly diagnosed lung cancers into one of four stages; *in situ*, local, regional or distant. There was no difference in the frequency of tumors diagnosed at the local stage by race or gender. Males were more likely than females to have tumors diagnosed at a regional stage (30% versus 26.2% respectively), although, for both men (39%) and women (41%), more malignancies were diagnosed at the distant stage than any other stage. Almost no lung cancer is diagnosed at the *in situ* stage, since symptoms are not apparent until the disease has progressed to a more advanced stage. The difference between black women (18.4%) and white women (27%) at the regional stage is also statistically significant as is the percentage of black women diagnosed at the distant stage compared to white women (55.2% vs. 40.5%).

Although survival rates are much better for a local stage diagnosis, mass screening for lung cancer is not yet advocated. Since the primary cause of lung cancer is behavioral, a more efficacious approach would be to effect a significant reduction in the prevalence of smoking.⁷

Histology and treatment

Nationally, squamous cell carci-

noma has predominated among men while both adenocarcinoma and small cell carcinoma have been increasing over the past twenty years. Both of these types of carcinoma show cohort patterns that reveal a later turnaround in men's rates, suggesting that these two histologic types will also decline in the future. Among white women, all forms of lung cancer have increased dramatically with adenocarcinoma increasing the most.⁵

In Indiana, no differences in histology by gender were seen. The most frequent histology reported was squamous cell carcinoma (28.5%). As seen in the national data, the proportion of lung cancer cases diagnosed histologically as adenocarcinoma and small cell carcinoma continued to rise. Currently, 24% of the cases reported in Indiana are adenocarcinoma, and 18.9% are small cell carcinoma.⁷

Cumulative treatment for lung cancer patients in Indiana is comparable to that seen in other parts of the country. Twenty-two percent of the cases are treated with surgery, 47% receive radiation therapy, 6% receive both

surgery and radiation therapy, 28% undergo chemotherapy, while 2% of the patients undergo hormonal therapy.⁷

Summary

Indiana is comparable to national statistics in many ways. For both, the lung cancer mortality rate is almost equal to the incidence rate due to the poor prognosis for individuals with this disease. Men have much higher mortality and incidence rates than women, and blacks have significantly higher rates than whites. Indiana however, does have significantly higher mortality and morbidity lung cancer rates than the United States as a whole. This is clearly attributable to the increased prevalence of cigarette smoking in Indiana. Since the primary cause of lung cancer is behavioral, a more efficacious approach to reducing lung cancer morbidity and mortality would be to effect a significant reduction in smoking prevalence. □

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Indiana family physician attitudes and practices concerning smoking cessation

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Most physicians are aware of the health benefits of smoking cessation, place a high importance on addressing this risk factor and agree that they have a responsibility to help smokers quit.^{1,2} Smoking cessation interventions initiated by physicians have proven to be somewhat successful in getting smokers to quit.^{3,4} Many physicians, however, do not use the most effective smoking cessation techniques with their patients.¹ In 1991, primary care clinicians, through office, clinic or hospital visits, had access to approximately 36 million (70%) of the 51 million people who smoked during the preceding 12 months.⁵ This access provides a unique opportunity for clinicians to influence tobacco use, which is the most preventable cause of morbidity and premature mortality in the United States.

Recent studies have assessed primary care physicians' attitudes and practices regarding their patients who smoke and have examined the barriers to success in physician intervention. More than 90% of primary care physicians reported routinely asking their patients if they smoke.^{1,2,6,7} Approximately 75% to 90% of physicians reported personally advising their patients to stop smoking.^{1,6-8} While many physicians advised

Abstract

Most physicians are aware of the health benefits of smoking cessation and agree they have a responsibility to help smokers quit. Many physicians, however, do not regularly address smoking cessation with their patients.

Questionnaires were sent to 2,095 family practice physicians in Indiana. Information obtained included: demographic data; office-based smoking cessation practices; counseling; and physicians' perceptions of intervention outcomes.

Most physicians (86%) asked new patients if they smoked, and 23% questioned patients about their exposure to passive smoke. Younger physicians, female physicians and urban physicians were more likely to ask new patients if they smoked. A formal smoking cessation program was used by 28% of the responding physicians. Among those not using a program, 7% reported plans to implement one in the coming year, 40% were not planning to implement one, and 53% were unsure. Physician and practice characteristics were not correlated with the use of smoking cessation programs. Only 11% of physicians considered their smoking cessation counseling skills to be excellent; 27% indicated the need for improvement in skills. One-half (52%) believed their counseling efforts were effective; almost half (45%) believed that current reimbursement policies limited their involvement in smoking cessation interventions.

Most respondents have not instituted smoking cessation programs in their practices. It is likely that a combination of strategies, including both undergraduate, graduate and continuing medical education programs and reform in reimbursement practices for cessation programs, will be required to achieve significant increases in long-term smoking abstinence rates. □

patients to quit, only 25% reported that they offered smoking cessation counseling, including setting a quit date and making referrals to smoking cessation resources, and only 11% routinely arranged patient follow-up.¹ Physicians reported being most likely to advise smoking cessation in patients who had reversible disease, were less than 60 years of age, were receptive to quitting and

had made previous attempts to quit. Physicians also perceived that their greatest impact on smoking cessation was among patients with smoking-related disease followed by patients without disease but with smoking-related symptoms, and that they had the least effect among patients without smoking-related diseases or symptoms.⁸

Physicians perceive various

obstacles to intervention including the time required to counsel patients, patient receptivity to counseling, training in counseling, confidence in the ability to help patients stop smoking and lack of reimbursement.^{2-6,8} An additional identified obstacle was the organization of their medical practice, including the inability to identify and track patients who smoke.^{1,7} Since about two-thirds of all smokers who quit the first time will relapse and begin smoking, often repeating the cycle numerous times before they achieve long-term abstinence, it has been suggested that clinicians lose patience and their commitment to provide multiple and diverse interventions and sustained counseling for patients.⁴ The impact of smoking cessation failures on physicians' motivation or effectiveness in counseling remains to be determined.

The purpose of this study was to: 1) identify the strategies that Indiana family physicians are currently using to help their patients stop smoking; and 2) identify the barriers that physicians perceive to exist in the implementation of formal, office-based smoking cessation programs. It was anticipated that the results of this investigation would be useful to clinicians who desire to develop and implement effective smoking cessation programs in their practices.

Methods

A survey instrument was developed by the authors, who include primary care physicians, a clinical nurse, a pulmonologist and health services researchers. The questionnaire was developed using the National Cancer Institute (NCI) model for physician intervention

with smokers.⁹ Questions were structured so as to determine practice patterns related to each of five elements in the NCI model: *ask* the patient if they smoke, *advise* the patient to quit, *assist* with setting a quit date and counseling, *arrange* for follow-up support of the patient, and *anticipate* tobacco use by children and adolescents. In addition, demographic data and questions concerning perceived barriers to the implementation of office-based smoking cessation programs were included. The focus of this study was smoking; therefore, we did not include questions regarding smokeless tobacco.

In March 1994, the survey instrument and explanatory information regarding the purpose of the study were mailed to all known family practice physicians (N=2,095) who were practicing in Indiana in 1993. The letter guaranteed anonymity to the respondents and offered each a summary of the study. The overall response rate was 720/2,095 (34.4%); the corrected (eliminated physicians not practicing or in non-primary care) response rate was 720/1,955 (36.8%).

Physician characteristics were correlated with whether the physician: 1) asked new patients if they smoked; 2) routinely counseled their patients who smoked to quit; 3) prescribed nicotine replacement therapy; 4) evaluated their counseling skills as excellent; 5) judged their effectiveness in counseling as excellent; 6) had a high estimate of the percent of their patients who abstained for six months; and 7) felt that current reimbursement policies for smoking cessation restricted their ability to counsel patients.

All data were analyzed using

Student's t-test, the Chi-square test or analysis of variance. The criterion for statistical significance was $P < .05$ throughout. Means are reported along with the value at one standard deviation.

Results

The mean age of the physician respondents was 50 ± 13.2 . Most were men (86%), and the number of years in practice was 21 ± 13.3 . Nearly two-thirds of the respondents (64%) had a practice located in an urban setting. The predominant type of practice was solo practice (45%), followed closely (42%) by a group of three physicians or more. Almost 16% of the respondents were members of a multispecialty group. Slightly more than one-quarter (27%) of the physicians belonged to a health maintenance organization. The number of patients seen per day was 29 ± 12.5 . Only 38 physicians (5%) were current smokers, and 371 (62%) were lifelong non-smokers. Of the physicians' offices, 666 (92.5%) were designated "smoke-free" (Table).

Comparison of demographic characteristics of the family physicians in the study sample to family physicians in Indiana (1990) and in the United States (1993) revealed that the study sample was similar in terms of physician age, urban practice, type of practice and patients seen per day.^{10,11}

Physicians were questioned about their use of formal smoking cessation programs or protocols in their offices, and 197 (28%) reported using a formal smoking cessation program or protocol. Of the offices that use formal programs, 54 (27%) use the American Lung Association program, 38 (19%) use the American Cancer Society program, 35 (18%) use

their own program, 17 (9%) use their hospital's program, 16 (8%) use the National Cancer Institute smoking cessation program, 11 (6%) use the American Academy of Family Physicians program, 10 (5%) use the Free and Clear program, and eight (4%) use Smoke Stoppers.

Of those who responded that they did not use a formal smoking cessation program, only 27 (7%) physicians reported they plan to implement one in the next year; 154 (40%) were not planning to implement a program in the next year, and 206 (53%) were unsure. None of the physician characteristics were significantly correlated with whether or not the physicians were using a smoking cessation program or protocol.

Physicians were asked to report how frequently they asked patients about their smoking, advised or counseled them to quit smoking, assisted them with setting a quit date and implementing a quit strategy, arranged follow-up support for smoking cessation and anticipated tobacco use among children and adolescents.

Asked patients

Of the physicians surveyed, 621 (86%) asked every new patient if they smoked. Only 161 (23%) routinely questioned patients about their exposure to passive smoke. Attempts to determine the degree of the patient's dependence or addiction to tobacco were reported by 509 (71%) while 621 (86%) routinely determined the patient's motivation to quit smoking.

Compared to physicians who were older, male and practiced in a rural area, younger physicians,

female physicians and physicians who have a practice in an urban area were more likely to ask their new patients if they smoked although these differences were not striking. The type of practice, physician's smoking history and the physician's attitude regarding whether reimbursement was a deterrent to counseling were not correlated with whether the physician asked patients if they smoked.

Advised patients

Most physicians surveyed (662, or 93%) routinely counseled their patients who smoke to quit. However, only 240 (34%) of the physician offices used office staff to counsel their patients who smoke.

Female physicians and physicians in group practice (two or more to the group) were more likely to counsel their patients to quit compared to male physicians and those in solo practice although these differences were modest. Office location (urban or rural), the physician's personal smoking history and their opinion on whether current reimbursement is a barrier to counseling were not correlated with whether they counseled their patients to quit smoking.

Most physicians (441, or 62%) evaluated their own counseling skills as average; only 79 physicians (11%) evaluated their skills as excellent while 188 physicians (27%) stated that their counseling skills needed improvement. Yet, 359 of the respondents (52%) believed that their counseling efforts were effective. Physicians who did not perceive current reimbursement policies limiting their involvement in smoking

cessation were more likely to rate their counseling skills as both excellent and effective; those physicians who felt that reimbursement limits their involvement were more likely to rate their counseling skills as needing improvement and not effective. No other variables were correlated with these perceptions.

Assisted patients

Of those physicians surveyed, 433 (61%) reported helping patients set a specific date to quit, and 567 (80%) routinely provided self-help smoking cessation materials to patients. Patients were asked to sign a smoking contract by 56 (8%) of the physicians. Nicotine replacement therapy had been prescribed within the past six months by 694 (97%) of the physicians. Nicotine replacement therapy had been used in combination with behavior modification by 528 (78%) of physicians. Nicotine replacement patches were used by 673 (94%) of the physicians while nicotine gum was used by 41 (6%) of the physicians. The use of nicotine replacement therapy was more common among younger physicians than older physicians. No other variable was found to be related to the use of nicotine patches.

Arrange follow-up for patients

Of the 663 physicians responding, 436 (66%) routinely asked patients who have received smoking cessation counseling to return for a follow-up visit. Follow-up appointments were made in the following time frames: less than two weeks, 19%; two to six weeks, 24%; and six weeks to 12 weeks, 55%.

Table

Demographics of family physician respondents (n=720)

		Frequency	Percent
Age of physician:			
under 30		6	0.8
30-39		169	23.4
40-49		207	28.8
50-59		118	16.4
60-69		142	19.7
70 and older		63	8.8
Gender:			
Male		595	82.6
Years in practice:			
0-10		203	28.2
11-20		197	27.4
21-30		109	15.1
31-40		134	18.6
41-50		45	6.3
Over 50		9	1.3
Office Location:			
Urban		428	59.4
Rural		144	20
Type of practice:			
Solo		321	44.6
2 physicians		88	12.2
3 or more physicians		301	41.8
Multispecialty:			
No		549	76.3
Member of an HMO:			
No		372	51.7
Average number of patients seen per day:			
0-10		45	6.3
11-20		143	19.9
21-30		260	36.1
31-40		176	24.4
41-50		40	5.6
51 or more		17	2.4
Physician smoking habits:			
Currently smoke:			
No		681	94.6
Ever smoked:			
No		371	51.5
Smoke free office:			
Yes		666	92.5

Anticipate tobacco use in children/adolescents/teens
Of the physicians surveyed, 642 (90%) asked teens if they smoked.

Barriers to providing smoking cessation counseling

One barrier identified was the physician's perceived success rates with patients. There were 252 physicians (39%) who estimated that fewer than 20% of their patients who quit smoking were able to abstain from tobacco for more than six months. Another 228 physicians (36%) estimated that 20% to 39% of smokers had abstained for more than six months; only 119 physicians (18%) believed that more than 50% of their patients who quit abstained for more than six months.

Male physicians were more likely to respond that their patients have abstained for more than six months. No other variable was correlated with greater than a six-month abstinence from smoking.

Additional barriers included current third-party reimbursement policies that generally do not pay for smoking counseling services, including nicotine replacement therapy. This was identified by 318 (45%) of the responding physicians; 145 (21%) responded that they were not sure if reimbursement affected their counseling.

Discussion

The present study provides the first quantitative assessment of office-based smoking cessation practices of family physicians practicing in Indiana. Our findings suggest that whereas the greatest majority of Indiana family physicians who responded to the survey indicated that smoking cessation counseling of their patients is

routinely carried out, the manner in which office-based programs are being implemented raises substantive questions about the overall effectiveness of clinicians' counseling efforts.

Most physicians (85%) in this study asked their new patients, including teenagers, if they smoked, which is a critical element in implementing an office-based smoking cessation program. Only 57%, however, asked pre-teenagers if they smoked. Since a significant fraction of pre-teenagers and even younger children use cigarettes, these data indicate that Indiana family physicians may not be adequately assessing this population for the purpose of identifying young people at risk for using tobacco and counseling those who are either experimenting with tobacco use or are using it regularly. In Indiana, the annual prevalence of use of cigarettes by students in grades five, six and seven was 13.9%, 20.9% and 31.7%, respectively, in 1991.¹³

Studies over the past 30 years have documented causal links between involuntarily inhaled tobacco smoke and increased frequency of respiratory illnesses and middle ear infections in children; decreased lung growth and function of the lungs during childhood;¹⁴ and in adults, a significant increase in the prevalence and incidence of respiratory symptoms and disease,¹⁵ lung cancer and cardiovascular diseases.¹⁶⁻¹⁸ Despite this extensive body of information in the medical literature and reviews in the lay press, only about one in five (23%) physicians in the present study asked their patients about passive smoking. These data suggest that more emphasis must be given to

the topic of passive smoking in medical schools, residency training and continuing medical education programs.

In the present study, younger physicians, female physicians and physicians practicing in an urban area were more likely to ask new patients if they smoked cigarettes compared to older, male physicians and physicians who practice in a rural area. These findings are similar to previous reports that found that younger physicians were more likely than were older physicians to determine a patient's smoking status.¹⁹ The likelihood of physicians asking patients about their smoking status in our study was not related to the physician's own smoking behavior, the nature of the physician's practice or the physician's perception of third-party reimbursement for smoking cessation or counseling services. Reimbursement was not found to be a deterrent to counseling, and we conclude that education would more likely be successful as an intervention in changing physician behavior.

In the present study, more than 90% of physicians reported that they regularly counseled their patients to quit smoking. This high rate of counseling activity among Indiana physicians likely reflects general familiarity and acceptance of recent scientific publications regarding both the clinical effectiveness^{4,20} and cost-effectiveness²¹ of physician advice about smoking cessation.

While more than 90% of physicians reported that they counseled their patients to quit smoking, only about one-third (34%) indicated that they used their office staff in this effort. A growing body of literature indi-

cates that successful smoking intervention programs provide multiple opportunities for both physicians and nonphysician counselors to interact with the patients over the longest possible time period.⁴ Continuing medical education programs and education initiatives for nonphysician professional staff need to incorporate counseling strategies that involve more office "team" management of the tobacco dependent patient.

Approximately one-half (52%) of physicians reported that they considered themselves to be effective in counseling techniques. Only a minority (11%) considered themselves excellent. Recently, programs to improve physicians' knowledge and skills in counseling have been initiated. An NCI training program for physicians was begun in 1991 with a goal of training 100,000 U.S. physicians.¹² An effort to educate clinicians in smoking cessation is being coordinated by the American Medical Association and is endorsed by the NCI, CDC and the American Society of Addiction Medicine. These national efforts will be unlikely to produce significant changes in physician practices unless local initiatives involving education of physicians and their office staffs are developed and implemented.²²

Physicians in the present study used a variety of techniques to assist their patients in smoking cessation. Nicotine replacement therapy had been used during the past six months by 97% of the physicians responding to the survey. Nicotine gum was used very infrequently, while the nicotine patch was used more than 90% of the time, a likely reflection

of recent data regarding the efficacy of the nicotine patch for smoking cessation.^{23,24} Most physicians (78%) in our study combined behavior modification with nicotine replacement therapy. Younger physicians were significantly more likely to use nicotine replacement therapy than older physicians.

Approximately two-thirds (66%) of respondents in the current study arranged for a follow-up visit after the smoking intervention. Only 19%, however, arranged for a follow-up visit within the two weeks of the smoking cessation intervention, and 24% didn't schedule a follow-up visit until three months after the intervention. Recent studies indicate that early and intense monitoring of patients following the smoking cessation intervention is a strong predictor of both short-term and long-term abstinence from tobacco.²³ Recent data suggest that routine nicotine replacement therapy using the patch achieves complete nicotine replacement in only 33% of patients. Higher doses of nicotine replacement may be necessary in achieving abstinence in some smokers, but further research will be necessary to clarify the safety and efficacy of this approach.²⁴

A major potential barrier to wider implementation of organized, office-based smoking cessation programs may be physician perception of a lack of success with their patients who smoke. In the present study, approximately one-half (48.2%) of physicians indicated that their counseling efforts were either not effective or they were unsure of their effectiveness. Even the most successful smoking cessation

programs result in abstinence from smoking at one year in only one of four patients. Physicians will need to measure success not by the number of patients who abstain from smoking for more than six months but by how many patients they motivate to move along the continuum toward long-term abstention.

Another potential barrier, current reimbursement patterns, was identified by almost one-half (48%) of the physicians who responded. Extended reimbursement for preventive health services may increase the adoption and use of effective tobacco use prevention programs in primary care physicians' offices.

In their review of literature on changing physicians' practices, Greco and Eisenberg list four general methods that have been used: 1) education; 2) feedback; 3) physician participation; and 4) administrative intervention. They found that clinical practice guidelines have been remarkably unsuccessful in influencing physicians' practice behavior. Practicing physicians often rely more on recommendations of colleagues or their own experience. Two methods, however, were found to be helpful. An especially promising method is the use of "opinion leaders" (men and women named by their peers as trusted sources of clinical information). Second, the use of feedback to physicians that allows them to compare their practices to those of their colleagues has been found effective.²⁵

How might these methods be applied to improve physicians' practice concerning smoking cessation? The NCI model for physician intervention with

smokers may be considered a "clinical practice guideline." Although these guidelines have been remarkably ineffective by themselves in changing physicians' practices, it may be possible to influence a change by identifying "opinion leaders" in the community who would be willing to adopt the NCI model or a comparable model as a standard of care. Sufficient resources would exist in most group practices or HMOs to implement the NCI model. This would be less likely in solo practitioners' offices. Similarly, providing family physicians with ongoing feedback about their practices concerning smoking cessation would be possible in group practices but more difficult and costly for solo clinicians. The social environment and organizational context of medical practice may be a critically important determinant of change in physician behavior.²⁶

Finally, Greco and Eisenberg raise several questions that are especially relevant to any study of physician practices concerning smoking cessation.²⁵ First, "is the chosen intervention appropriate for the desired change in practice?" In other words, do family physicians' practices concerning smoking cessation reflect a lack of knowledge concerning the NCI recommendations? Second, "do physicians support the proposed change in their practice?" Because smoking quit rates with current strategies are relatively low, family physicians may not share the enthusiasm of the NCI or other experts for the proposed change in their practice style. Finally, "how will the intervention be perceived?" In other words, will providing physicians with feed-

back on their performance in this area be viewed as threatening, or as an opportunity? Additional requirements on their practice may be viewed as another practice burden.

Significant increase in the use by family physicians of effective, office-based smoking cessation programs will likely depend upon several changes. Expanding medical school and residency curriculum in preventive health services, including smoking cessation, is required.²⁷ More emphasis must be given to continuing medical education programs that use effective learning techniques.²⁸ Finally, health care reimbursement strategies that promote preventive health practice will be needed. Since tobacco cessation programs are among the most cost-effective preventive health strategies,²⁹ it would be wise public policy to significantly expand research funding to improve procedures and techniques that enable practicing physicians to enhance their office-based tobacco control programs. □

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Workplace tobacco interventions

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The role of the workplace in health promotion has taken an increasingly prominent role.¹ The link between behavioral risk factors on health care costs and absenteeism has been extensively reviewed.² A recent prospective study by Ryan et al³ associated cigarette smoking with adverse employment outcomes such as industrial accidents, occupational injuries, disciplinary action, as well as absenteeism. Hypertension detection, cancer detection, weight reduction programs, substance abuse programs, stress management programs and exercise programs are being used by corporations to reduce the rapidly rising costs of health care. In addition, smoking cessation has come to play an integral role in disease prevention offered by industry.

In addition, the strong link between passive smoking or environmental tobacco smoke (ETS) and human disease has taken a prominent place in the push for the workplace to take a proactive stance concerning smoking cessation. Recent reports from the Environmental Protection Agency (EPA),⁴ which classified environmental tobacco smoke as a known human carcinogen, and the National Institute for Occupational Safety and Health (NIOSH)⁵ have given impetus for workplaces and public facilities to go smoke-free.

The specific health effects that have been attributed to ETS exposure of adults include lung and other cancer and heart and

Abstract

Health promotion programs are becoming an integral part of work site activities. Recent data from Indiana businesses suggest that smoking is a leading concern. An objective has been adopted by the Indiana Chamber of Commerce that states that the number of employers with work site smoking cessation policies should increase. Smoking control and cessation programs implemented in industry have contributed to a decrease in the number of smokers and in the health risks of nonsmokers exposed to environmental tobacco smoke. This report describes the effectiveness of work site smoking control programs. □

lung disease.^{4,6} Glanz and Parmley⁶ have estimated that ETS exposure is the third leading cause of preventable death in the United States after active smoking and chronic alcohol abuse. They estimated that of the 53,000 annual deaths due to ETS, 37,000 were due to heart disease. The adverse effects upon the heart are due to multiple factors. Passive smoking increases the concentration in blood of carbon monoxide, with resultant displacement of oxygen from hemoglobin and less oxygen availability at the tissue level. Passive smoking also affects platelet function, which can facilitate thrombus formation and atherosclerotic development. Passive smoking causes decreased concentration of high density lipoprotein in blood. Heart muscle injury from the activity of free radicals after an ischemic event is worsened by passive smoking. Epidemiological studies have observed that passive smoking increases the risk of both fatal heart disease as well as nonfatal heart disease.

Passive smoking also contrib-

utes to an increased risk of lung cancer in nonsmokers.^{4,5} It is estimated that 3,000 to 4,000 excess deaths occur annually as a result of passive smoking. Multiple epidemiological studies from different countries and over the past 15 years have shown increased relative risks of nonsmokers living with smokers.^{4,5} Most of these studies have focused on home exposure. Studies performed in industries that allowed smoking show that ETS exposure can be equal to or greater than exposure in smokers' homes.⁷

The "general duty clause" of the Occupational Safety and Health Administration Act (OSHA Act) requires that the employer has a general duty "to furnish to each of his employees ... a place of employment which is free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees" (section 5 [a][I]). OSHA has also recently proposed that all workplaces be essentially smoke-free.⁸

The number of work sites banning smoking has dramatically

increased in the past decade. Nearly 60% of workplaces with over 50 employees in 1992 had policies banning smoking or directing smoking to an area that was well ventilated.⁹ This was compared with 1985 when 27% of workplaces had such policies. This increase occurred not only from health concerns but also from potential legal liability and legislative changes that had occurred.

Numerous studies have reviewed the effectiveness of smoking policies on quit rates, air quality and employee satisfaction. The New England Telephone Company implemented a non-smoking policy in 1986.¹⁰ Employ-

ees were surveyed 20 months later. While most were satisfied with the policy, half of the respondents wanted more restrictions on smoking.

Sorensen et al¹¹ describe a short-term intervention study that included a three-month intervention period for eight work sites in the Bloomington, Minn., area. Quit rates were higher in the intervention group as compared to the control group. Greater success occurred when individuals worked with nonsmokers and were told to not smoke by coworkers.

Patten et al¹² describe the role workplace policies on smoking

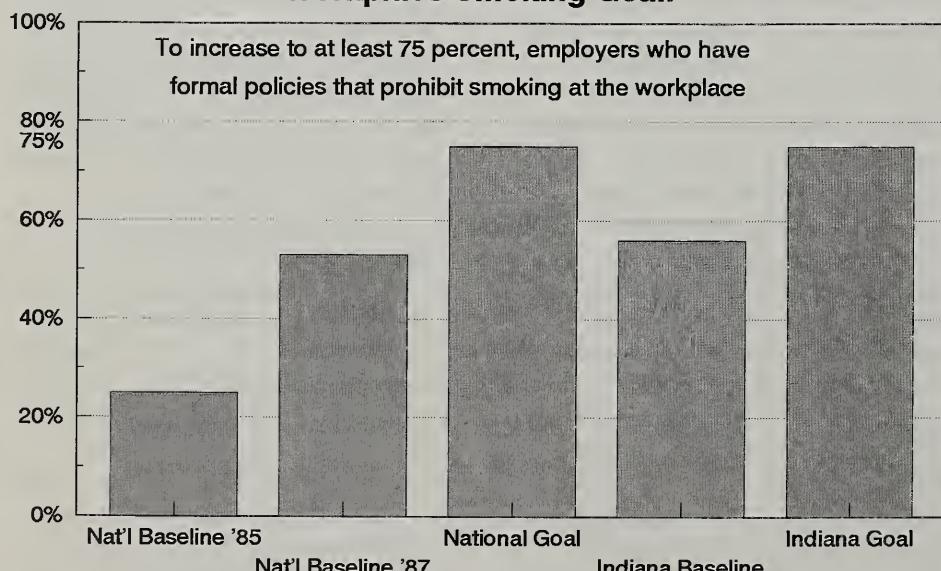
cessation play on exposure to environmental tobacco smoke in California. There was noted to be a significant increase in the number of smoke-free workplaces from 1990 to 1993. This increase in the number of smoke-free workplaces resulted in a significant decrease in environmental tobacco smoke exposure to nonsmoking employees. Nonsmoking employees were 15 times more likely to be exposed to environmental tobacco smoke if working in a location without a work site smoking policy versus a work site with a policy.

Hospitals and health care institutions have increasingly addressed the issue of smoking within their facilities.^{13,14} The hospital industry became the first industry to go smoke-free industry wide. The standards implemented by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) were to be in place in hospital facilities by Dec. 31, 1993. A smoking ban standard and a smoking exception standard were to be in place. More than 95% of hospitals complied with the smoking ban standard two years after implementation, and 90% complied with the smoking exception standard. Stillman et al¹⁴ reviewed the policy of smoking cessation that occurred at the Johns Hopkins Medical Institutions in 1987 and noted that smoking cessation increased, environmental tobacco exposure decreased, and the number of fires significantly decreased.

Nonsmoking areas in commercial aircraft have expanded from certain sections of the planes to all cabin sections on all domestic flights. These have all occurred because of potential adverse health effects on passengers and flight crews and attendants.

Table

**Indiana Chamber of Commerce
Wellness/Healthy Lifestyles-
Workplace Smoking Goal:**



Source: *Outlook*/April-May 1993.
Used with permission - Indiana Chamber of Commerce

In addition to federal laws, city and state laws and ordinances have been enacted to restrict smoking in public facilities and workplaces.^{12,15-17} *Healthy People 2000* calls for states to enact legislation to restrict or ban smoking in workplaces.¹⁸ An extensive survey of no-smoking laws in cities with a population greater than 25,000 as well as states was performed in 1989.¹⁵ By 1989, 44 states and 500 (51%) of the cities had some smoking restriction. There was a varied response to laws concerning government buildings, public places, restaurants and private workplaces. Only 17% of cities and 20% of states had comprehensive laws restricting smoking in all four of these sites. The number of city nonsmoking laws increased tenfold from 1980-1989.

California has been active in enacting workplace legislation on tobacco control. More than half of the ordinances in place by 1992 related to workplace smoking control were in California.

In 1985 legislation was enacted in New Jersey to control smoking in places of employment of more than 50 employees.¹⁶ Large employers were surveyed after the implementation of policies. The majority of respondent companies (97%) had implemented restrictive policies with most of the employees (80%) supportive of such policies. It was felt that the state law was an important factor in workplace smoking restrictions.

In 1987, Indiana regulated smoking in public places.¹⁷ The law states that persons in charge of public buildings are required to designate a no-smoking area and may set aside a place for smoking;

where both smoking and no-smoking areas are designated, persons in charge may take 'reasonably necessary' measures to accommodate both smokers and nonsmokers; conspicuous signs reading 'Smoking is Prohibited by State Law Except in Designated Smoking Areas' must be posted; persons in charge must request those in violation of the law to refrain from smoking and remove anybody who refuses to refrain from smoking upon request; and persons who smoke in public buildings in violation of the law are guilty of a Class C infraction."

In 1992 the Indiana Chamber of Commerce surveyed its members and suggested that by the year 2000 at least 75% of the employers have workplace smoking cessation policies. Fifty-six percent were noted to have policies at the time of the survey (Table). This survey was part of the broader issue of wellness and healthy lifestyles. The chamber recommended a total ban on smoking and discussed the value of a smoking ban policy and follow-up to determine effectiveness. □

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Racial differences in the impact of smoking-attributable disease on health care costs in Indiana

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Although prevalence rates for smoking have decreased over the past three decades, smoking prevalence rates have remained consistently higher for men than women and for blacks compared to whites.¹ These gender- and race-specific differences in smoking prevalence are reflected in differences in smoking-attributable mortality (SAM) and years of potential life lost (YPLL) rates. The SAM rate for men is more than twice the rate for women, and the SAM rate for blacks is 12% higher than for whites.^{2,3} Additionally, the rate of smoking-attributable YPLL before age 65 for men is about three times that for women and twice as high for blacks than for whites.^{2,3}

In 1993, the direct medical care costs attributable to smoking in the United States were estimated at \$50 billion: \$26.9 billion was associated with hospital expenditures, \$15.5 billion with physician-related expenditures, \$4.9 billion for nursing home expenditures, \$1.8 billion for prescription drugs and \$900 million for home health care.⁴ The average per capita cost for all smokers and nonsmokers in 1985 has been estimated at \$205, ranging from \$54 per capita in Puerto Rico to \$284 per capita in Rhode Island.⁵

The average costs for males are 32% higher for ever smokers than for never smokers (\$35,914 vs. \$27,276); among females, the average costs are 24% higher for ever smokers than for never

Abstract

The purpose of this investigation was to estimate the direct health care costs attributable to smoking in Indiana and address these costs in the context of the differential health impact of tobacco use on minorities. Estimates of direct health care costs for smoking in 1990 were calculated using the Smoking Attributable Morbidity and Mortality and Economic Costs (SAMMEC 2.1) computer-based program developed by the Centers for Disease Control and Prevention. The proportion of direct health care costs attributable to smoking were calculated by evaluating personal health expenditures from five cost centers including hospitalization, physician services, services of other health practitioners, nursing home care and drugs.

Study findings indicate that direct health care costs were more than \$700 million in 1990. Health care spending among whites accounted for 53% of total costs. Per capita costs among smokers and nonsmokers \geq 35 years of age amounted to \$278. Although whites accounted for the majority of direct health care costs attributable to smoking, per capita costs were higher among African Americans compared to whites, reflecting the differential smoking-attributable mortality rates experienced by these two groups. □

smokers (\$52,902 vs. \$42,783). Compared to never smokers, total expected lifetime medical expenditures are 47% higher for male heavy smokers (25 cigarettes a day) and 41% higher for female heavy smokers.⁶

In Indiana, almost 10,000 deaths and more than 120,000 YPLL are attributable to smoking each year.⁷ Smoking prevalence in Indiana has declined slowly over the past 10 years (32.2% in 1985 and 27% in 1992).¹ Despite this slow decline, in 1992 smoking prevalence in Indiana was still 1.4 percentage points higher than the United States as a whole (27% vs. 25.6%, respectively).^{1,8} As the uptake of cigarette smoking

among adolescents continues to increase and cessation activity among adults slows down, the economic impact to the state will be substantial.

The purpose of this investigation was to estimate the direct health care costs due to smoking-related illness in Indiana. In addition, smoking-attributable costs are addressed in the context of the differential health impact of tobacco use on minorities in Indiana.

Method

Estimates of direct health care costs for smoking in 1990 were calculated using SAMMEC 2.1. SAMMEC is a useful tool designed

to measure the disease and economic impact associated with cigarette smoking.⁹ A discussion of the methodology used to calculate smoking-attributable mortality for Indiana has been published.⁷ SAM was calculated using relative risk estimates for 22 adult (≥ 35 years of age) smoking-related diseases and relative risk estimates for four perinatal (< 1 year of age) conditions and is based on the smoking-attributable fraction for these diseases. Mortality data for 1990 were obtained from the Public Health Statistics Division of the Indiana State Department of Health. Cigarette smoking prevalence estimates were obtained from the Behavioral Risk Factor Surveillance System. SAM rates were age-adjusted and standardized to the 1990 U.S. population.

Direct health care costs due to smoking were calculated by evaluating personal health expenditures from five cost centers: hospitalization, physician services, services of other health practitioners, nursing home care and

drugs. Total 1990 expenditures for these cost centers in Indiana, obtained from the Health Care Financing Administration, include \$4.68 billion in hospitalization, \$2.16 billion in physician services, \$1.23 billion in nursing home costs, \$1.19 billion in medication and \$3.3 million in other professional services.

The proportion of these costs attributable to smoking was obtained by applying the smoking-attributable fractions (SAFs) for annual hospital days and annual physician visits for the treatment of persons with neoplastic, cardiovascular and respiratory diseases for the group under study. Per capita costs were also calculated and reflect average rates that included smokers and non-smokers. Rates of hospitalization and physician visits in the past 12 months for current, former and never smokers were used to calculate relative rate estimates comparing current and former smokers to never smokers. The relative rates were then used along

with prevalence data on smoking to calculate the SAFs.⁹

Results

In 1990, 9,218 (92.7%) smoking-attributable deaths occurred among whites, 717 among African Americans (7.2%) and 12 among other minorities (0.1%). Most of these deaths were due to cardiovascular diseases, followed by neoplasms, respiratory diseases and perinatal and other diseases.⁷ Although the SAM for whites is substantially higher compared to African Americans and other minorities, the SAM rates were the highest for African Americans (Figure 1). SAM rates were the highest among African American men (613 deaths/100,000) followed by white men (587.8 deaths/100,000), African American women (250.1 deaths/100,000) and white women (229.4 deaths/100,000). In addition, overall SAM rates were almost three times greater among men compared to women.⁷

Because of the small sample sizes for the nonwhite, nonAfrican

Table
Total and per capita smoking-attributable direct health care costs by race and sex - Indiana, 1990

Race	Men		Women		Both genders	
	Total*	Per capita**	Total*	Per capita**	Total*	Per capita**
Whites	\$272	\$247	\$106.7	\$84	\$378.7	\$159
African Americans	\$241.9	\$3,331	\$87.6	\$957	\$329.5	\$2007
Combined	\$513.9	\$437	\$194.4	\$142	\$708.3	\$278

* in millions of dollars

**among people ≥ 35 years of age, based on 1990 census data for Indiana

American category, health care costs attributable to smoking could not be calculated for this group. However, health care costs are presented for both whites and African Americans. Direct health care costs attributable to smoking amounted to over \$700 million in 1990. Health care spending among whites accounted for approximately 53% of total costs (\$378 million). Among the five major cost centers for direct health care costs, hospitalization accounted for most of the total direct health care costs for both whites and African Americans (67.9% and 68.2%, respectively). Overall, the percentage of smoking-attributable direct costs by major cost centers was similar among whites and African Americans (Figure 2).

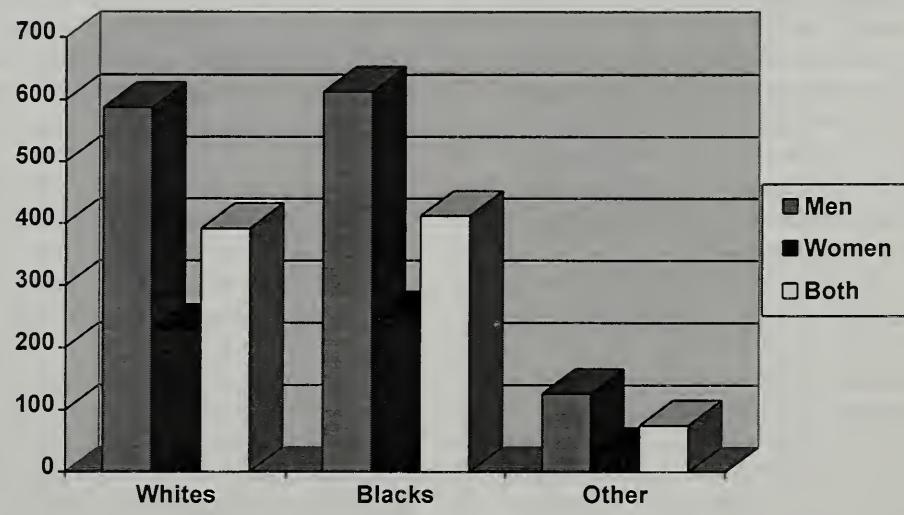
The proportion of costs by gender was similar across whites and African Americans. Direct health care spending attributable to smoking among African American men accounted for 73% of costs compared to 72% among white men (Table).

Total per capita costs among people ≥ 35 years of age amounted to \$278 in 1990. This estimate represents all residents of Indiana over the age of 35, smokers and nonsmokers alike. Although whites accounted for the majority of direct health care costs attributable to smoking in 1990, per capita costs were the highest among African American men and women (\$3,331 and \$957, respectively). Overall per capita costs were more than three times greater among men compared to women (\$437 and \$142, respectively).

Discussion

Direct health care costs associated with smoking among Indiana residents are substantial. This is

Age-adjusted smoking-attributable mortality rates* by race and sex - Indiana, 1990



* Per 100,000 people ≥ 35 years old, adjusted to the 1990 U.S. population

Figure 1

Smoking-attributable direct health care costs by major cost center and race - Indiana, 1990

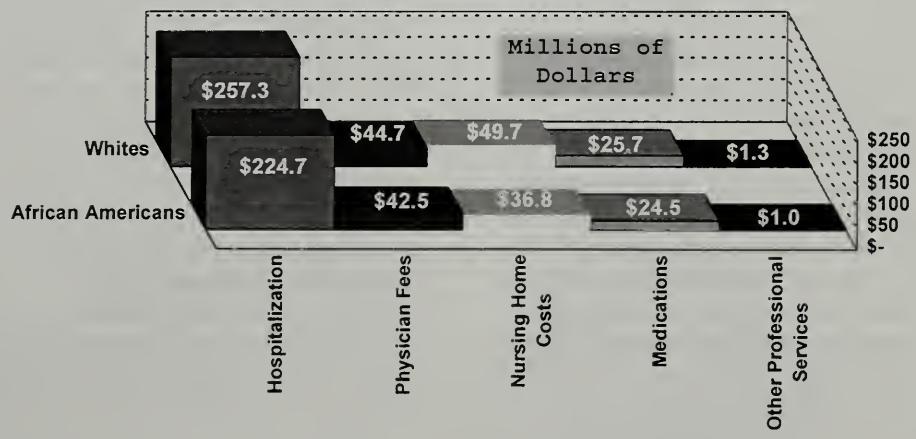


Figure 2

not only a reflection of state-specific estimates of the major cost centers for health care delivery but is also impacted by the high prevalence of smoking among Indiana citizens. Although overall direct health care costs associated with smoking are higher among whites, per capita costs are much greater among African Americans, reflecting the differential smoking-attributable mortality rates experienced by these two groups.

These direct health care cost estimates are probably underestimated since they reflect the total disease burden calculated from current smoking rates. Given typical lags between exposure and onset of illness for smoking-related diseases, the mortality and morbidity experienced today from smoking reflect smoking prevalence rates from 10 to 15 years ago. Thus, higher rates of smoking-related mortality and costs would be expected if typical smoking prevalence estimates from 10 to 15 years ago were used.

The estimates presented in this investigation also do not include smoking-attributable indirect morbidity and mortality costs. Indirect morbidity costs represent those costs due to lost income and productivity for persons who are sick or disabled from smoking-attributable diseases. Indirect mortality costs represent the costs due to lost income and productivity due to premature death from smoking-related disease or injury. Total costs attributable to smoking are substantially greater than the direct health care cost estimates presented here.

The economic benefits of quitting for the individual smoker

and society are substantial. Quitters below the age of 45 can avoid 54% to 67% of expected lifetime losses due to smoking. For heavy smokers (more than two packs per day) under the age of 45, the total lifetime dollar benefit of quitting is about \$34,000 for men and about \$12,000 for women. Similarly, quitters over the age of 65 can avoid 32% to 53% of expected lifetime losses due to smoking. For example, for a heavy smoker over the age of 65, the total lifetime dollar benefit of quitting is about \$3,700 for men and about \$4,600 for women.¹⁰

Although about 46 million American adults continue to smoke, an equal number were former smokers in 1993.¹¹ The prevalence of cessation is higher among men, whites and people living at or above the poverty level.¹¹ A number of high-risk populations have been targeted by the Department of Health and Human Services to reduce overall tobacco use, including women, black adults and people with a high school education or less.¹²

Emphasis should be placed on deterring the onset of smoking among youths. Each year, more than 1 million young people start to smoke, adding \$10 billion over their lifetimes to the cost of health care in the United States.

When coupled with school-based tobacco use prevention programs, raising excise taxes on tobacco products to reduce demand and eliminating or severely restricting tobacco product access can be powerful tools in discouraging tobacco use among youths. □

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Smoking cessation in primary care

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Nicotine dependence is a serious but treatable medical disorder.¹ The importance of this is highlighted by the fact that nicotine dependence produces a devastating disease burden in our country where smoking accounts for 19% of all deaths in the United States.² Health care professionals can play an incredibly important role in helping their patients stop smoking and are ideally positioned to initiate intervention since most smokers see a physician every year. As physicians, we have all been confronted with patients who continue to smoke despite severe medical complications to smoking. Though frustrating to the practitioner, these patients exhibit characteristics of a severe dependence just as to alcohol or other drugs. In this article, three areas will be outlined where all health care professionals can play an important role: 1) the medical setting; 2) an office-based intervention; and 3) pharmacologic therapy.

The medical setting

Stopping smoking is a process, and the more consistent we make the message that smoking is an unacceptable behavior, the more likely we are to break through the defenses and denial of the smoker. First, we should ensure that health care professional offices and hospitals are smoke-free. It is important for patients and staff to understand that environmental tobacco smoke is a class A carcinogen, as are radon, asbestos and benzene. Health care professionals can be active within their communities so that more public places are made smoke-free by changing city/county ordinances. Nonsmokers, such as patients with asthma and chronic obstructive pulmonary disease, deserve to have smoke-free restaurants and other public places.

Furthermore, we should reduce the exposure of our patients to advertising and promotion of tobacco products by subscribing only to magazines for our offices and hospitals that contain no tobacco advertising. A list of such magazines is available from the AMA. If this were done in all hospitals and physicians' offices throughout the country, a clear message would be sent to advertising firms and magazines of the importance of smoking as a health issue.

Another important concept for health care professionals is to not focus all attention on abstinence as the only outcome. There are well-defined stages through which patients move in making this dramatic lifestyle change. Though abstinence is the ultimate goal, movement through the stages of change is a very important outcome in itself. The stages of change commonly used are: 1) pre-contemplation – the patient has never really thought about stopping smoking; 2) contemplation – the patient may have thought about stopping smoking but has not set a date to stop within the next six months; 3) preparation – the patient is moving toward stopping and has set a stop date

within the next month; 4) action – the patient has initiated the abstinence process; and 5) maintenance – the patient has achieved initial abstinence and now is concentrating on prevention of relapse.³ Patients in the preparation stage of readiness are twice as likely to stop smoking on the next attempt compared to those who are in contemplation at the time of the initial intervention.⁴ Thus, one measure of success is moving a patient to a higher stage of change. This can be done with a brief office intervention or during a "teachable moment" for a hospitalized patient.

Office-based intervention

The National Cancer Institute has developed an office-based intervention for physicians and other health care professionals that provides brief but effective intervention. This is based on the four "A's:" 1) ask all patients about their smoking behavior; 2) advise every smoker to stop smoking; 3) assist each smoker in setting a stop date; and 4) arrange a follow-up visit.

First, the smoker needs to be identified, and when possible, the risk of smoking and benefits of stopping smoking should be personalized for that patient. Many physicians have their office staff identify all smokers before the doctor sees the patient. Nonphysician health care professionals such as nurses, respiratory therapists and counselors can be trained to support the physician intervention and provide counseling and follow-up for the patient.⁵ The concept of collecting smoking

status as a new vital sign has been incorporated in many smoking cessation guidelines and has been shown to increase the frequency of advice for smoking cessation.⁶ This puts the information in front of the physician and makes it easier to go to the second "A," which is to advise all smokers to stop smoking.

Personalizing the risk for the individual patient is very important since patients' perception of whether their current medical problem is related to their smoking is an important motivating factor.⁴ Assisting the patient in setting a date to stop should be focused within the next 30 days, if possible.

This depends upon the patient's stage of readiness; thus if the physician can move the patient toward action, this improves the chance of long-term abstinence.

The final "A," arrange a follow-up visit, can be placed around the time of the stop date or subsequent to the initiation of pharmacologic therapy. The importance of a follow-up visit cannot be over-emphasized. The initial follow-up visit should occur within the first two weeks after the stop date. The first two weeks are of particular importance as those who achieve initial abstinence during this time are more likely to have sustained abstinence.^{7,8} Furthermore, the more follow-up visits in the initial cessation process, the greater the chances of the patient's achieving abstinence.⁹ More detailed information, includ-

ing a manual, *How to Help Your Patient Stop Smoking*, and the self-help brochure, *Clearing the Air*, is provided by the National Cancer Institute (1-800-4-CANCER).

Pharmacologic therapy

Primary care physicians are ideally positioned to provide and monitor pharmacologic therapy. Currently available pharmacologic therapy is a useful adjunct to smokers who are trying to stop smoking, but many more agents are undergoing testing. Nicotine gum has been available for use for many years, and recently the 4 mg size has been released for use in the United States. Though nicotine gum has

active patch, compared to 25% of those on placebo.⁷ At one year, there was still a robust 27% versus 14% stop rate. Even with minimum intervention, nicotine patch therapy is effective, producing six-month stop rates of 26%.¹²

Cotinine is considered the biologic measure of choice when used for monitoring nicotine replacement therapy in smokers.¹³ Using the concept of therapeutic drug monitoring, it is possible to calculate the nicotine replacement dose that will be necessary to achieve 100% replacement. This is done by dividing the steady state level while on nicotine patch therapy and not smoking by the

baseline cotinine (while smokers are smoking). When using a standard 21 or 22 mg per day dose, most smokers will achieve approximately 50% replacement using this calculation.¹⁴

Though nicotine gum has recently been overshadowed by the introduction of nicotine patches, it still has a role in smoking cessation and is effective when used properly.

recently been overshadowed by the introduction of nicotine patches, it still has a role in smoking cessation and is effective when used properly. Future trials are likely to demonstrate its additional utility when used in conjunction with nicotine patch therapy, either for acute situations where relapse is more likely to occur or as a longer term taper once the initial patch phase is completed.¹⁰

Nicotine patch therapy has proven to be effective in multiple different studies¹¹ and, when used in combination with the NCI physician intervention with follow-up by a nurse, produced an end-of-patch-therapy cessation rate of 50% of those assigned to

Thus, using a single, fixed nicotine patch dose may not meet the biologic needs for adequate nicotine replacement in all smokers, and better matching of the dose may enhance the efficacy of nicotine patch therapy.

Two recent studies have reported on the case of higher dose patch therapy. One showed better efficacy with the higher dose, and the other did not.^{12,15} Though the efficacy of high-dose therapy has not been proven conclusively, it may be beneficial for those who have tried the standard dose and failed or in those heavier smokers who are unlikely to achieve adequate replacement with a standard dose.¹⁶ Intuitively, it

stands to reason that a single dose is not going to be effective for all smokers.

Improved dose matching to achieve 100% nicotine replacement can be approached in two general ways. First, the positive correlation between self-reported smoking rate in cigarettes per day and cotinine levels at baseline can be used to identify patients who may need higher doses.¹⁵ For patients who smoke 20 cigarettes a day or less, a single 21 or 22 mg nicotine patch may suffice, while those smoking between 20 and 40 cigarettes per day may need an intermediate dose of 33 or 35 mg per day for relief of withdrawal symptoms and initiation of smoking cessation. Those smoking 40 or more cigarettes per day should be considered for a dose of 44 mg per day.

For a more refined assessment of the dose matching, blood cotinine levels can be used to determine the initial patch dose and then rechecked at steady state (after three to four days of treatment) to make any necessary adjustments. For a baseline cotinine of <200 ng/ml, an initial dose of 21 or 22 mg/d may suffice, while for levels between 200 and 300 ng/ml, doses of 33 or 35 mg per day will likely be needed. For those with a cotinine of >300 ng/ml, a dose of 44 mg/d may be needed to achieve adequate replacement levels. The 44 mg/d dose of nicotine patch therapy has been shown to be safe for use in heavy smokers,¹⁵⁻¹⁷ but use of doses higher than this has not been reported.

In an attempt to stop smoking, the first two weeks of nicotine replacement therapy are critical.^{7,8} After initiating nicotine patch

therapy on the stop date, the patient should have a follow-up visit within the first two weeks with the health care professional. If abstinent at this visit, the patient can continue the same replacement dose for another two weeks, and then it can be decided about another return visit and how to adjust the dose. Much of what is done here depends upon the individual patient, the amount of withdrawal symptom relief and the presence of the urge to smoke.

For those who have not stopped smoking at four weeks while on the patch, it should probably be discontinued and the patient encouraged to set a new stop date in the near future. However, if the patient has substantially reduced the smoking rate on a single nicotine patch dose but is still struggling, increasing the dose by adding a 7, 11 or 14 mg patch should be considered. Most patients will use the nicotine patch for four to eight weeks, but the optimal duration of therapy has not been determined. Thus, the follow-up visits are important to determine the length of therapy and what tapering schedule to use for that patient.

There is a spectrum to the severity of nicotine dependence among smoking patients. The patient with heart disease who continues to smoke obviously is more severely dependent than a person who has no tobacco-related diseases. Thus we need to provide an array of treatment options in a stepped-care model if we are to provide the most effective treatment.

Patients with a higher degree of nicotine dependence may need a more intensive program such as a group intervention. Outpatient

group programs are available through most hospitals or community organizations and usually have several sessions with a combination of lectures and group therapy. The highest level of intervention currently available is an inpatient treatment program where patients are hospitalized to initiate abstinence.¹⁸ Such programs include lectures, group therapy, pharmacologic therapy, individual therapy, exercise, stress management and dietary instructions as well as an intensive support system provided in a smoke-free milieu. This type of program is obviously meant for those with the most severe nicotine dependence who have tried to stop smoking in other ways but have been unable to achieve initial abstinence or for individuals with life or limb threatening tobacco-related diseases.

Many pharmacologic agents are under investigation. The nicotine nasal spray and bupropion seem to have the most potential.^{19,20} More pharmacologic adjuncts probably will be available in the future, and trials will be performed where combinations of existing and future products are used that will improve their efficacy.

All health care professionals can be involved in the process of helping patients stop smoking, but the physician's role is key. In addition, using other members of the health care team can enhance the physician intervention. Applying the four "A's" from the NCI program to the everyday practice of medicine is an important start. When using pharmacologic therapy, applying the concepts of therapeutic drug monitoring may be important in achieving initial

abstinence while using nicotine patch therapy. For patients who need more intensive therapy, community resources are usually available, and a select few may need inpatient treatment in order to achieve initial abstinence. □

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Treating highly dependent smokers with nicotine gum and patches

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Smoking prevalence in the United States has been decreasing since the 1960s, and many occasional or light smokers (<10 cigarettes per day) have already quit. The percentage of heavy smokers (>25 cigarettes per day) was about 25% in 1974, 29% in 1980 and 22% in 1991.¹ Of the 46 million cigarette users in the United States, an estimated 10 million are considered to be highly dependent (hard-core) smokers.¹

What is a highly dependent smoker?

The descriptive term highly dependent (hard-core) smoker is a person who smokes 25 or more cigarettes a day and is unable to stop without intensive help.^{2,4} This individual is less likely to be successful in quitting and much more apt to develop tobacco-induced diseases and die prematurely than an occasional or low dependent smoker. In addition, as compared to a light smoker, a highly dependent smoker has: more trouble with nicotine withdrawal symptoms; stronger urges and cravings for cigarettes; greater problems with weight control; and higher scores on the Fagerström Tolerance Questionnaire, which is a physiologic nicotine dependence scale for smokers^{4,6} (Table 1).

According to Velicer et al,⁷ highly dependent smokers are also more apt to report that:

- their cigarette smoking is routinely pleasurable;
- after not smoking for a while,

- smoking a cigarette makes them feel "great";
- they like the image of being a cigarette smoker;
- their family and friends like them better when they are smoking because they become irritable when they try to quit;
- smoking helps them to concentrate and work more effectively; and
- their decision to continue smoking gives them a sense of autonomy in choice-making.

Some people may have a genetic predisposition toward nicotine addiction.^{2,8} These people also may have encountered painful, early life experiences that predispose them to drug dependency, including parental abuse or neglect, inconsistent parenting, emotional deprivation, parental shaming and/or chaotic family interactions. These negative events deleteriously affect the self-respect, self-confidence, self-determination, self-discipline and self-control of the youngsters who experience them.

Most smoking cessation interventions for the highly dependent smoker focus on the following: reducing nicotine dependency; changing the psychological and behavioral factors involved in smoking rituals; learning new living patterns consistent with being a non-smoker; and changing ways of thinking in order to decrease the likelihood of relapse.

What smoking cessation methods are most effective?

Every known smoking cessation method claims a certain degree of success. Some techniques, how-

ever, are more effective than are others.

Law and Tang⁹ analyzed data from 188 randomized controlled trials of smoking cessation interventions and concluded that "physicians should take time to advise all their patients who smoke to quit." An estimated 2% of consecutive smokers who were given only this advice stopped smoking and did not relapse for at least one year. Although the effect is modest, it is cost-effective. Supplementary interventions (follow-up letters, visits and telephone calls) have effects that are variable but nevertheless are worthwhile. Those people who are highly dependent smokers but intent on stopping should be given personal advice to quit and supplementary interventions as appropriate and offered nicotine replacement therapy.

Behavior modification therapy, including aversion therapy, silver acetate (gum or mouth spray), sensory deprivation and hypnosis have shown minimal, if any, efficacy in controlled trials. Nonspecific behavioral modification approaches result in efficacy rates of about 2%. Scare tactics tend to induce feelings of futility and defeat, producing either modest short-term quit results or no progress at all. About 80% of all smokers who succeed in quitting reach their goal by using the "cold turkey" method.

For the highly dependent smoker, there are no short-cuts to cessation success. The physiological, psychological and sociocultural rewards of smoking are not easily relinquished, and fewer are successful in quitting using the

cold turkey method. When the desire to quit is strong, however, the most optimal chance for recovery can be found in a scientifically sound and professionally directed program, combined with nicotine replacement and withdrawal therapy. When a systematic, consistent and caring approach, which includes education, behavioral counseling and psychological support, is paired with the prescribed and monitored use of nicotine replacement, abstinence rates that are several times greater than control or non-intervention quit rates are usually achieved.¹⁰⁻¹⁴

Behavioral change is a crucial part of the cessation program. It is vital that all recovering smokers learn how to deal with the social and psychological aspects of smoking cessation by planning their coping strategies in advance. To achieve long-term abstinence, these people must gain the necessary insights and skills and apply them to high-risk relapse situations. Patients who need a more intensive approach can find help through individual counseling.³

In Indiana, formal smoking cessation is offered by various organizations, e.g., the American Cancer Society, American Lung Association of Indiana and the Seventh Day Adventists, and by health care institutions, including local, hospital-sponsored wellness programs.

For the past three years, the primary focus of the Indiana University Nicotine Dependence Program has been the treatment of highly dependent smokers. During this period, this facility, located at the medical center in Indianapolis, has treated more than 200 highly dependent smokers. Biologically verified one-year abstinence rates

Table 1

The Fagerström Test for Nicotine Dependence*

Questions & answers	Score
How soon after you wake up do you smoke your first cigarette?	
≤ 5 minutes	3
6-30 minutes	2
31-60 minutes	1
≥ 61 minutes	0
Do you find it difficult to refrain from smoking in places where it is forbidden – e.g., in church, at the library, in a cinema?	
Yes	1
No	0
Which cigarette would you hate most to give up?	
The first in the morning	1
Any other	0
How many cigarettes per day do you smoke?	
≤ 10	0
11-20	1
21-30	2
≥ 31	3
Do you smoke more frequently during the first hours after waking than during the rest of the day?	
Yes	1
No	0
Do you smoke if you are so ill that you are in bed most of the day?	
Yes	1
No	0

*Scores of more than six generally are interpreted as indicating a high degree of dependence, with more severe withdrawal symptoms, greater difficulty in quitting and possibly the need for higher doses of medication. Heatherton TF, Kozlowski LT, Frecker RC, Fagerström KO: The Fagerström Test for Nicotine Dependence: A revision of the Fagerström Tolerance Questionnaire. *Brit J Addict*, 86:1119-1127, 1991.

in our program are 33%.

What is nicotine replacement and withdrawal therapy?

Nicotine replacement and withdrawal therapy is a pharmacologic approach to smoking cessation that uses nicotine-containing gum (Nicotine polacrilex) or transdermal-delivery nicotine patches of varying concentrations (Table 2).¹⁰⁻¹⁴ Nicotine replacement and withdrawal therapy is designed to reduce and control nicotine dosages, and thus, to manage cravings and withdrawal symptoms. Eighty percent of smokers who attempt to quit suffer significant withdrawal symptoms, including: a dysphoric or depressed mood; insomnia; irritability, frustration or anger; anxiety; concentration difficulties; restlessness; decreased heart rate; increased appetite or weight gain; and nicotine cravings. Appropriate use of the nicotine patch or gum significantly reduces these symptoms.

Smoking cessation rates during the first few months of treatment with transdermal nicotine preparations range from 20% to 40%, i.e., the use of patches doubles or triples long-term smoking cessation rates.⁶ In highly dependent smokers, chemically verified nonsmoking rates at six weeks, one year and two years were, respectively, 60%, 39% and 34% in subjects who were given the 4-mg gum, as compared with 41%, 16% and 16% in those who were given the 2-mg gum.¹⁴

When people have stopped smoking and are using a nicotine patch or gum, they gain immediate benefits. Many nicotine patch or gum users report that they feel better almost immediately after

Table 2

Characteristics of nicotine-containing patches and gum used in smoking cessation therapy¹³

NICOTINE PATCHES

Brand	Size	Dosage per patch*
<i>Habitrol</i> (Ciba-Geigy)	round 30 cm ² 20 cm ² 10 cm ²	21 mg/24 hrs 14 mg/24 hrs 7 mg/24 hrs
<i>Nicoderm</i> (Marion Merrell Dow)	rectangle 22 cm ² 15 cm ² 7 cm ²	21 mg/24 hrs 14 mg/24 hrs 7 mg/24 hrs
<i>Nicotrol</i> (McNeil)	rectangle 30 cm ² 20 cm ² 10 cm ²	15 mg/16 hrs 10 mg/16 hrs 5 mg/16 hrs
<i>Prostep</i> (Lederle)	round 7 cm ² 3.5 cm ²	22 mg/24 hrs 11 mg/24 hrs

*Lower doses are recommended for patients weighing less than 100 pounds, light smokers (less than one-half pack per day) and those with cardiovascular disease and for tapering.

NICOTINE GUM

Brand	Nicotine content per piece	Dosage
<i>Nicorette</i> (SK Beecham)	2 mg	9 to 12 pieces/day max. 30 pieces/day
<i>Nicorette DS</i> (SK Beecham)	4 mg	9 to 12 pieces/day max. 20 pieces/day

they begin therapy. Eliminating exposure to carbon monoxide reduces the risk of angina or myocardial ischemia in patients with underlying coronary artery

disease. The incidences of other vascular diseases or symptoms, including stroke and claudication, decrease soon after smoking ceases. In patients with reversible

obstructive lung disease, symptoms of cough, wheezing and dyspnea improve within a few days. With sustained abstinence, the risk of lung or other neoplasms and cardiovascular diseases gradually decreases (over several years) to approximate the comparable rates experienced by lifelong nonsmokers.

Why is nicotine used to treat a nicotine addiction?

The proper use of nicotine replacement therapy helps recovering, highly dependent smokers by: 1) significantly reducing and controlling withdrawal symptoms; 2) eliminating virtually all tobacco-related, toxic chemicals in the bloodstream and lungs, except for passive smoke; 3) offering a more manageable and sequentially paced treatment process, addressed from physiological, psychological and sociocultural perspectives; and 4) providing insights into the ritualistic, stimulus-response-reward cycle of smoking, which is deeply rooted in internal and external triggers and reward systems.

Who should use nicotine withdrawal therapy?

The most appropriate candidates for using nicotine transdermal patches or nicotine gum are adults or teenagers (age 18 and older) who:

- have a high motivation to quit;
- engage in heavy cigarette usage patterns (>25 a day);
- began smoking in early adolescence or childhood;
- previously engaged in unsuccessful, quit-smoking efforts;
- experienced severe symptoms of nicotine withdrawal in previous quit attempts;

- scored high on the Fagerström Test (>6) for Nicotine Dependence;
- feel strong and compelling smoking urges when cigarettes are unavailable;
- escalate their smoking levels to reduce either stress or negative moods; and
- have no medical contraindications or relative contraindications, e.g., hypersensitivity or allergy to nicotine; not addicted to nicotine; unwilling to stop using tobacco products; immediate post-myocardial infarction period; life-threatening arrhythmias; pregnancy; and other conditions or symptoms that may be worsened by nicotine replacement therapy.

Guidelines when prescribing nicotine gum

The safe and effective use of nicotine gum requires adherence to specific usage guidelines (*Table 2*):

- Nicotine withdrawal therapy must preclude all other nicotine use (via cigarettes, cigars, pipes and/or smokeless tobacco).
- Nicotine gum usage requires specific instructions (it must be chewed correctly).
- Sufficient amounts of gum must be ingested to control withdrawal symptoms, and the nicotine gum must be used in conjunction with an effective educational, behavioral and psychological cessation program.
- Nicotine gum (2-mg) is recommended for use by light smokers (one dose in place of every 2 cigarettes), and 4-mg gum is prescribed for more highly dependent smokers (one dose for every 3-4 cigarettes).¹²⁻¹⁴
- Nicotine gum should be used on a regular schedule to prevent underdosing. When the medication is underused, withdrawal symptoms are not controlled, and relapse may occur. Highly dependent smokers need to use one piece of 4-mg nicotine gum every waking hour, especially during the first few weeks of treatment.
- No more than 30 pieces of 2-mg gum or 20 pieces of 4-mg gum should be used in any 24-hour period. Many patients need only 12 to 16 pieces of 2-mg gum daily.
- As each piece of this medication is taken, slow and intermittent chewing should occur for about 30 minutes and then the gum should be discarded. Rapid chewing releases nicotine too quickly, causing hiccups, a sore mouth and/or nausea. It also diminishes the intended effects of the gum use because most of the nicotine is swallowed, compromising its therapeutic benefit. When the gum is not being chewed, it should be "parked" between the cheek and teeth, and then it needs to be rechewed every few minutes to release more nicotine.
- No food or liquids, especially those that are acidic or hot, e.g., soft drinks, juices, coffee, tea, should be ingested during or immediately before using nicotine gum. If nicotine is swallowed with saliva or washed down with liquids, it will not be absorbed effec-

tively and it may cause heartburn and/or throat irritation.

Patients need to use nicotine gum for a duration of four to eight weeks, and they should be weaned gradually from the medication.⁶ Dosage scheduling can be delayed by increasing the length of time between therapeutic use or by decreasing daily consumption, i.e., eliminating one piece of gum every seven days, until less than two to three pieces are being used daily. At this point, the treatment can be discontinued.

What is the nicotine transdermal patch and how does it work?

Nicotine replacement therapy may be administered as nicotine polacrilex gum or as nicotine-containing adhesive transdermal patches.^{6,10,11,13} After smoking is discontinued, the usage of a nicotine patch allows a steady absorption of nicotine through the skin, and it produces reduced predictable concentrations of this addictive substance in the bloodstream.

Throughout the day, the relatively stable blood nicotine concentration levels, which may vary from about one-third or more of the nicotine blood concentration produced by cigarette smoking, alleviate nicotine withdrawal symptoms. Recent studies indicate that underdosing patients, e.g., failure to achieve >50% to 75% or more of blood nicotine concentrations produced by cigarette smoking, results in higher relapse rates.^{6,11,12,14}

Over several months, typically four to eight weeks, the patient is systematically weaned by continu-

ing to reduce the dosage every two to four weeks.⁶

To successfully implement this smoking-cessation adjunct, clear and sequential use instructions must be followed throughout the cessation process. Additionally, a complete program of personal recovery includes the provision of psychological insights and skills training in behavior modification. Consistent follow-up is also a crucial part of the complete recovery process.

What is the most efficient method of nicotine patch application?

An unused (fresh) patch should be placed on the upper torso (chest or back) or on either arm at the same time each day. It should be left in place undisturbed and worn continuously for the next 24 hours. While this routine is typically carried out in the morning upon arising, the time of application depends upon individual needs and preferences. After the treatment has been initiated, however, it is important that the patient consistently follow that time schedule.

Patches should be applied to a fresh, clean, dry, nonhairy area of skin. While a naturally hairless part of the body is preferable, any shaven site can be used, if it is not nicked or irritated. The patch should be placed only on normal skin that is not routinely rubbed and chafed, injured, burned, broken out, cut or damaged in any way. Because the patches are designed to withstand exposure to water and perspiration, they can be worn while bathing, showering or swimming. If a patch loosens or falls off for any other reason, a new patch should be applied.

Other considerations before prescribing nicotine patches/gum?

Information regarding the use of nicotine replacement therapy may be obtained from recent medical literature, the *Medical Letter* or representatives of pharmaceutical companies. Before starting the therapy, have your highly dependent smoking patients gradually decrease (over a two-week period) their cigarette intake to no more than one pack (20 cigarettes) per day. This pretreatment reduction process lowers and stabilizes nicotine levels in the brain, significantly minimizes severe withdrawal side effects and increases the probability of long-term cessation.

Before they commit to this therapy, people who are pregnant or who have heart disease or other significant health problems (as listed in the prescribing information) will need medical clearance from their physicians. People who weigh less than 100 pounds or who smoke less than one-half pack (10 cigarettes) per day should start nicotine treatment with the lower dosage forms of gum or patch.

While it is important for smokers to choose their own quit date, they should plan for this event within two weeks. This commitment will reduce their tendency to procrastinate. Ideally, the person who is quitting will enlist psychological support from a spouse, family member or friend.

What about follow-up care?

Regular follow-up care throughout the withdrawal treatment period is critical if long-term abstinence rates are to be achieved. More intensive follow-up, including nurse counseling during the first

two weeks after quitting, has resulted in significant improvement in long-term abstinence.^{6,11} To avoid receiving a nicotine overdose, patients must be reminded to completely abstain from cigarette smoking during the entire treatment process.

At specified intervals during the cessation process, some clinicians use a portable breath analyzer to measure carbon monoxide (CO) levels in expired alveolar air. This relatively inexpensive device, ranging in cost from about \$800 to \$1,400, is used to validate self-reported smoking abstinence. Its use has also been found to increase abstinence rates.

Aftercare at regular intervals can be accomplished by office visits, telephone calls and/or mail. Several studies have shown that aggressive and persistent telephone inquiries during the cessation process can materially aid quit rates. Also, patients should be encouraged to call if they encounter any cessation-related problems, either between these contacts or after the 10th week of therapy. Since highly dependent smokers are prone to relapse after smoking cessation, long-term follow-up and supportive care are recommended. Some highly dependent people who fail initial smoking cessation interventions can be referred to specialists who offer more detailed and intense cessation programs.

Summary

Smoking is a complex, addictive behavior that involves pharmacological, psychosocial and behavioral factors. Successful management of highly dependent smokers requires that clinicians use a structured, multifaceted patient management approach that includes the appropriate use of replacement and nicotine withdrawal therapy and intensive monitoring and long-term follow-up. □

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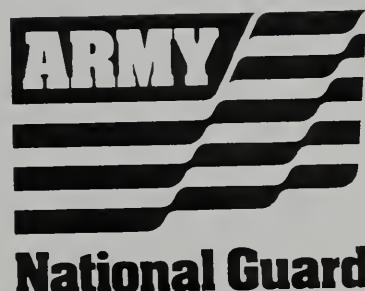
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Smokeless tobacco usage: A growing and menacing addiction among Hoosier children and young adults

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Although the percentage of U.S. smokers has steadily declined during the past 25 years, the consumption of chewing tobacco and moist snuff has increased.¹⁻⁴ The addictive practice of tobacco "chewing, dipping and spitting" is also an increasing problem among youth in Indiana. Presently, it is especially popular among children and younger adults.

What is smokeless tobacco? How is it typically used?

In the United States, smokeless tobacco (ST) is commonly used in four forms:

- snuff: loose, fine-cut or coarse tobacco contained in a can or kept within a small teabag like pouch;
- chewing tobacco: the loose leaf variety, packaged in large, folding pouches;
- plug tobacco: compressed leaf tobacco, sold in a block or brick form; and
- twist: stemless tobacco leaves, lightly twisted and folded.

Another form, nasally snuffed tobacco powder, is commonly used in England, but seldom in North America.¹

ST, in its various forms, may be plain or flavored, salted or scented. These products are commonly sweetened with maple sugar or molasses, adding a glucose or sucrose content that ranges between 5% and 15%.

The practice of snuff dipping consists of placing a "pinch," a "dip" or a "rub" of snuff (the

Abstract

During the past 25 years, the consumption of chewing tobacco and moist snuff has been increasing in frequency, especially among the youth. Smokeless tobacco (ST) use among Indiana youngsters is higher than its use among youngsters nationally. More than 10% of current Indiana high school junior and senior female students report some ST usage. ST ingestion causes addiction and serious health consequences, including various forms of cancer and significant dental diseases. It is not a safe alternative to cigarette smoking. Nicotine levels in ST are very high, and ST intake is rapidly addicting. Tobacco companies have been accused of "graduating" youthful customers from flavored lower-nicotine "starter" products to forms that contain a more highly concentrated nicotine content. Clinicians should routinely ask children, teens and adults about ST use. Early intervention in youth who are experimenting with ST or using "starter" products may prevent addiction and disease. Physicians should be alert to the intraoral physical signs of ST use. To strengthen their tobacco intervention skills, physicians should acquire continuing education training regarding ST. □

amount that can be picked up by the thumb and forefinger) between the cheek and gum. The most common position to place snuff is in the mandibular labial mucosa (cuspid to cuspid). Tobacco chewing involves the similar placement of a "chaw," (a golf ball sized wad of leaf or plug tobacco) which is picked out of its pouch container, using the thumb, index and middle fingers, and sucked on. Users of this product can be identified by their extended cheek. A "quid" of tobacco is a cut or wad of tobacco that is held in the mouth for dipping (snuff) or chewing (leaf or plug). If a "chaw" of chewing tobacco is wrapped in bubble gum, a common practice among professional baseball players, it is called gumbacco.¹

Typically, the tobacco quid is

positioned in an area of the mouth and not moved from this location. As a result, the tobacco chewer does not actually "chew" per se. Many people dip or chew most of their waking hours, and some keep a quid in place for 24 hours a day. The average high school ST user dips or chews about three hours a day, while a college athlete typically uses about two to eight dips or chaws per day.^{2,5} An experienced tobacco chewer can keep a quid of tobacco "alive" for about two hours.

The ST user must periodically spit out the excess tobacco juice that builds up in the mouth. Because some users of ST do not want to be seen spitting, they may swallow the tobacco juice, which can cause gastrointestinal problems. Others may use a disposable

Styrofoam or plastic cup in lieu of the old fashioned cuspidor.

Who is using smokeless tobacco?

Recent national data compiled from several large-scale, U.S. studies indicate that 10 million to 12 million people are ST users.⁶ The groups at highest risk are white youth and young adults, aged 10 to 30 years. Usage among young men, aged 18 to 24 years, is now greater than it is among any other segment of the U.S. population. Between 1970 and 1985, the prevalence of moist snuff intake has risen dramatically, with a 10-fold increase occurring among 16-to 19-year-olds.⁷ In past decades, ST usage occurred primarily among middle-aged to older men. Today, however, dippers and chewers are considerably younger. Nationally, about 8% to 10% of children from the seventh through the ninth grades are using ST.³ Initial ST intake typically begins in the preteen and early teen years. One state has reported that nearly 10% of third to sixth graders have tried ST.

The prevalence of ST use varies greatly in different regions of the country, with the lowest rates generally in the Northeast, in cities, and the highest in the South, in rural areas.⁶ However, even among urban dwellers, there are pockets of high usage by children.⁸ ST is consumed primarily by males in all ethnic groups, except among American and Canadian Indians and Alaskan natives, where the frequency of usage for both genders is similar, often exceeding 50%.

Prohibited behaviors tend to attract young people: any practice that is offensive or shocking to adults is usually appealing to adolescents and teenagers. As

Glover has written:

"Adolescents, as a group, love whatever adults dislike and vice versa. The term spit tobacco may be offensive to adults; however, the most common response I hear among adolescents is 'cool.' I argue the term spit tobacco is much more appealing to young people than smokeless tobacco (ST), and in fact could create a new excitement for ST experimentation, rather than have the desired effect of decreasing ST use."⁹

Other reasons for this adolescent attraction are: 2) peer pressure, especially by those who participate in athletic teams (e.g., baseball, wrestling, football, rodeo

events); 3) the promotion of these products by well-known, professional athletes; 4) the use of cleverly conceived advertising and the appealing display of ST products; 5) the convenience factor, which enables ST to be used where smoking is inappropriate or prohibited; 6) the young users' naivete concerning the harmful, addictive nature of smokeless tobacco; 7) the tobacco companies' widespread sponsorship of numerous, youth-oriented sporting events and entertainment and their distribution of mild ("starter") forms of snuff during such occasions.

Currently, one-third of all



Figure: The labial area of this 21-year-old male, chronic snuff user reveals severe gum recession, bone loss and a typical snuff dipper's keratosis. Gum recession commonly occurs in the area that is immediately adjacent to the spot where a smokeless tobacco quid is habitually held. Recession occurs in about 30% to 60% of ST users.

varsity football and baseball players use smokeless tobacco. Young men have reported that, initially, they tried ST after the idea of usage had been sanctioned by their fathers, other male relatives and/or male friends. These youth stated that perceived social support was their most influential reason for starting this practice. The baseball-youth-tobacco connection and the availability of tobacco look-alike items (e.g., beef jerky and bubble gum, which are placed in snuff cans and chewing tobacco pouches) further enhance the acceptability of ST use by children and adolescents.¹

What is the status of ST use among the youth of Indiana? Since the early 1980s, ST usage has been steadily increasing among Indiana youngsters. From 1984 to 1988, Christen and coworkers conducted ST surveys in six Indiana middle schools, located in both rural and urban settings.⁸ These field surveys revealed that 21% of eighth grade boys were using ST, and 23% of this group were smoking cigarettes.

In April 1987, Lucas and Christen⁸ studied 2,915 fifth, eighth and 11th grade boys and girls (ages 10 through 18) from 123 participating Marion County schools. For all three grades, a combined ST prevalence use rate for boys was 6%. (The national average for boys is 8% to 10%.) Only 1% of girls were ST users. The current ST usage rate of boys, by grade, was: 4.5%, fifth grade; 7.7%, eighth grade; and 11.5%, 11th grade.

In 1994, Bailey and colleagues¹⁰ at the Indiana University Prevention Resource Center presented data on alcohol, tobacco and other drug use by 81,732 Indiana chil-

dren and adolescents (half boys, half girls) from 250 schools throughout Indiana. More than 10% of the current female junior and senior students from this group had reported some use of smokeless tobacco, in contrast to the national average of 1% of U.S. girls who have ever used ST.³ (Table).

Hoosier students in grades six through 12 continue to maintain their higher-than-national consumption rates of legal and illegal drugs, including both smoked and smokeless tobacco.¹⁰

What oral and systemic conditions are associated with ST use?

Although cigarette smoking poses a greater immediate danger to health than does the use of unburned tobacco, ST intake is a dangerous addiction with serious, and possibly deadly, health consequences.^{3,6} Yet, tobacco companies continue to market ST as "the safe alternative to cigarettes." In reality, however, smokeless tobacco users are six times more likely than are non-users to develop oral cancer. Scientific evidence reveals a direct, causative correlation between chronic ST usage and an increased risk of developing oral, laryngeal, throat and esophageal cancers. Some people have developed mouth cancer after only a few years of using smokeless tobacco. Moreover, only about half of those who contract cancer of the mouth are still alive after five years.

The use of ST is positively associated with oral leukoplakia, a precancerous condition that is usually localized where the tobacco quid is habitually held.^{6,11} Chemical analysis of moist snuff has revealed the presence of several potent carcinogens: polo-

nium 210, polycyclic aromatic hydrocarbons and nitrosamines. In moist snuff, the nitrosamines are more highly concentrated than they are in chewing tobacco.⁶

Bad breath and the discoloring of teeth and dental fillings are common problems experienced by users of ST. Additionally, chewers and dippers have a higher prevalence of excessive wear (abrasion) on the biting and the grinding surfaces of their teeth. This condition is caused by the high levels of abrasive grit inherent in tobacco products. Tobacco use decreases the ability to taste and smell bitter, salty and sweet foods. Also, gingival (gum) recession, gingivitis, advanced periodontal destruction and loss of teeth have been reported to occur adjacent to the oral regions where the tobacco quid is held.¹¹

Swallowing tobacco juices can have an adverse effect on the gastrointestinal system and especially on the stomach, causing ulcers.³ The hemodynamic effects of ST include increases in heart rate and blood pressure due to the pronounced vasoconstrictive effects of nicotine. When pregnant women use moist snuff, the transplacental passage of nicotine may have toxic effects on the fetus.

No substantive evidence indicates that ST use improves athletic performance.³ Smokeless tobacco advertisers have perpetuated the image of the confident baseball hero in action with his chaw of tobacco actively working for him.

How can we diagnose ST use?

Health care providers should routinely inquire about tobacco use because many children experiment with or regularly use tobacco products, often at an early age.

Thus, tobacco use can be documented in the medical record.

The evidence of the growing appeal of ST may be verified by the ever increasing number of worn, bleached round rings (the outline of the size and shape of a snuff can) appearing on the back pockets of jeans worn by young males throughout the country. This mark of distinction has become a symbol of virility, maturity and toughness among thousands of young Americans. Some youth have learned that if they place a snuff can in their back pocket and rub the edges of the can on a concrete surface, they can fray their jeans and give them the instant look of an ST user.

Patient tobacco-use patterns can change as habits and lifestyle change, as an addiction becomes established, and as decisions are made to stop, or as one switches from one form of tobacco to another. A knowledge of present ST usage among the young person can alert a health care provider to an increased probability that subtle tobacco-induced changes or frank lesions may be present within the patient's mouth.

By simply examining the mouths of our patients, we can observe the detectable, destructive signs of tissue damage adjacent to the teeth, gums and cheeks (*Figure*). The direct and repeated contact of tobacco between the cheeks and gum tissues causes the gums to recede, exposing the bare roots of the teeth. This condition produces sensitivity to heat, cold, air and certain foods and chemicals. The inside of a dipper's or chewer's mouth will frequently reveal mucous membranes on the inner cheek that appear peculiarly wrinkled, thickened and white, similar to the hide of an elephant.

Table

Smokeless tobacco use by Indiana students in grades six through 12, boys and girls combined percentage, 1994

(Indiana Prevention Resource Center)¹⁰

Grade	6th	7th	8th	9th	10th	11th	12th
Daily ST use	0.6	1.7	2.6	4.2	5.2	6.4	7.0
Monthly ST use	4.0	7.5	10.6	13.3	13.6	14.6	15.5
Annual ST use	6.8	11.7	16.5	20.8	21.8	23.1	24.6
Lifetime ST use	9.0	14.9	20.1	25.8	28.0	31.0	33.9
National 1993 monthly ST use*	—	—	6.6	—	10.4	—	10.7

* 1993 National High School Senior Survey¹⁰

These leathery appearing areas, called leukoplakia, are believed to be precancerous.¹¹

Is ST use a form of drug addiction?

Nicotine addiction is maintained by ingesting tobacco in any form – smoked or smokeless. Many clinicians believe that ST usage is more addicting than is cigarette smoking. For example, Glover reported a 2.3% success rate for a smokeless tobacco quit clinic but a 38% success rate at six months for cigarette smokers.³ In one large-scale study, 21% of current smokeless tobacco users (12- to 18-year-olds) had unsuccessfully tried to stop four or more times.³

The intake of nicotine (and/or its metabolite cotinine) and nicotine blood levels in habitual

users of ST are similar to those that are observed in habitual cigarette smokers.² An average sized dip of snuff, held in the mouth for 30 minutes, delivers as much nicotine as do four cigarettes. Recent studies have documented that the moist snuff brands on the U.S. market vary significantly in nicotine content, from 2.9 to 14.5 mg/g. As a result, a novice tobacco user may buy a "starter" ST product with a low bioavailability of nicotine (7.5 mg/g) that is geared to the nontolerant individual. Over time, this person will tend to progress unknowingly (i.e., "graduate") to an intermediate product (10.3 mg/g) and later to a product with a high bioavailability of nicotine (11.4 mg/g).¹² In fact, of the six popular moist snuff brands tested, free nicotine levels varied

from 7% to 79%.¹² As a result, users become increasingly dependent on nicotine as they progress from milder, flavored snuff to stronger, more addictive brands.

Can ST users be treated with nicotine replacement therapy?

According to the FDA, nicotine patches and gum can be prescribed for tobacco users who are 18 years of age or older. For the past three years, facilitators at the Indiana University Nicotine Dependence Program have been successfully treating a few adult ST users with 4 mg Nicorette®. For chewers or dippers, one positive aspect of nicotine gum use is that it replicates smokeless tobacco intake: nicotine gum is also ingested orally. Additionally, it helps to control the body's physiological urges and cravings for nicotine during the detoxification period of recovery, thus allowing the patient to deal with a range of social and psychological barriers to quitting.

What can physicians do?

About 70% of U.S. citizens see a physician at least once a year, while 63% see their dentist during this time period.⁶ According to the National Cancer Institute:

"Medical and dental visits provide many opportunities for one-to-one discussion about tobacco use and health consequences and methods for quitting. Medical visits for prenatal care, child health, and upper respiratory or cardiovascular conditions provide special opportunities to discuss reasons for quitting. Both physicians and dentists can prescribe nicotine replacement therapy, when indicated. Follow-up visits for many routine dental services can also be used for

follow-up of tobacco use interventions."⁶

Physicians need to watch for the intraoral, physical signs of ST intake and use this "teachable moment" to encourage cessation. They should adopt tobacco-free policies for their offices and help all staff members to remain or become non-users. To strengthen their tobacco intervention skills, both physicians and staff members can acquire additional training in this arena. The National Cancer Institute and voluntary health agencies offer these skill-building opportunities to health care providers.

Summary

In Indiana, among both children and young adults, ST usage is higher than is the national average. ST usage is an unsafe alternative to cigarette smoking because it can cause oral, laryngeal, throat and esophageal cancer, leukoplakia (pre-cancer) and a variety of dental conditions, including gingivitis, advanced periodontal disease and tooth loss. This type of nicotine ingestion is extremely addictive. Physicians need to watch for the intraoral physical signs of ST intake and routinely provide cessation advice to ST users. □

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Best practices for smoking cessation intervention for hospitalized patients

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Health Care Excel Inc. (HCE), which holds the Medicare Peer Review Organization (PRO) contracts for Indiana and Kentucky, is conducting an educational initiative on smoking cessation. HCE's quality improvement activities concentrate increasingly on the clinical aspects of patient care, with an emphasis on prevention. Efforts are underway to identify variation in processes and outcomes of clinical care and to utilize guidelines and best practices, in collaboration with health care providers, practitioners and consumers, to reduce variation and improve care.

The Centers for Disease Control and Prevention estimates of cigarette smoking prevalence and smoking-attributable mortality for 1990 show both Indiana and Kentucky to be in the highest quartile for the United States.¹ Cigarette smoking accounts for a substantial portion of all medical care costs and is recognized as the most important preventable cause of morbidity and mortality in the United States.²

Smoking cessation is important in both disease management and disease prevention. It results in immediate and major health benefits at all ages.³

Hospitalization has been described as a "window of opportunity" for a smoking intervention, when patients may be more receptive and motivated to quit.⁴ The recent JCAHO requirement that smoking in hospitals be

Abstract

A multi-disciplinary workgroup of health care professionals and consumers has developed evidence-based best practices guidelines, an algorithm and clinical pathways for smoking cessation intervention for hospitalized patients. These practice recommendations can be adapted for implementation in managed care settings. □

prohibited means that most smokers must quit during hospitalization, perhaps encouraging more prolonged quit attempts. Further impetus is provided by the emergence of managed care and by the momentum for hospitals to perform community health assessments and respond to identified problems.

Aim

HCE's aim is to document published smoking cessation best practices for hospitalized patients, to evaluate these best practices by piloting them locally and to promulgate the findings locally and nationally.

Process

HCE staff identified and obtained smoking cessation practice guidelines, treatment protocols and scientific evidence. The 1200 HSTAR (Health Services/Technology Assessment Research database of National Library of Medicine) and 950 PSYCHINFO abstracts (online database of Psychological Abstracts of American Psychological Association) were reviewed, and articles relevant to smoking cessation best practices were obtained. Existing guidelines,

along with more recent scientific articles, were used to develop a best practices first draft.

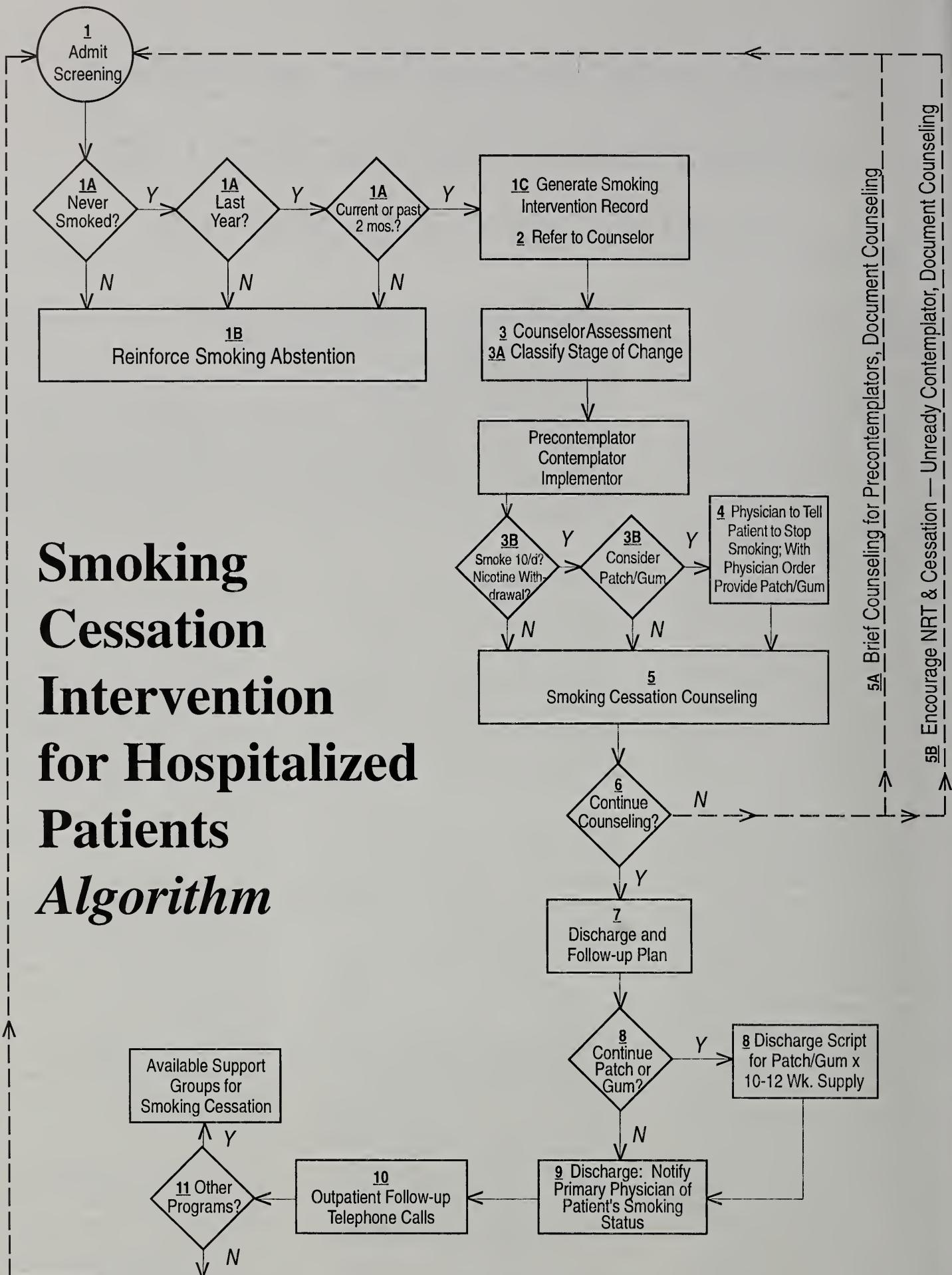
An expert multi-disciplinary workgroup from Indiana and Kentucky, representing hospitals, health departments and professional and consumer associations, revised and refined the best practices during a 2 1/2-day workgroup meeting. Clinical pathways and an algorithm, summarizing the model intervention, were also developed to facilitate implementation.

External reviewers' comments were solicited and incorporated into a second draft at a subsequent 2 1/2-day session. After extensive external review, a final draft was developed in January 1996, with piloting beginning shortly thereafter. The effects of the pilot are being evaluated through pre- and post-intervention medical record abstraction.

Specific model: Smoking cessation intervention for hospitalized patients

An algorithm summarizing the intervention is shown in the *Figure*. A stages-of-change model, supported by extensive research, classifies smokers according to

Smoking Cessation Intervention for Hospitalized Patients Algorithm



cessation readiness stages: precontemplation, contemplation, preparation, action (or implementation) and maintenance.⁵ The model requires:

1. screening at admission for smoking status;
2. referring smokers to a designated smoking cessation counselor;
3. classifying smokers and providing stage-appropriate brief counseling;
4. physician advice to stop smoking; prescription of nicotine replacement therapy (NRT) during hospitalization and for one week post-discharge for patients without contraindications;
5. counseling according to stage-of-change;
6. multiple brief contacts relating to smoking by members of the health care team during hospitalization;
7. developing a discharge and follow-up plan, discussing it with the patient and including relapse counseling and self-help materials;
8. providing a prescription for an additional 10- to 12-week supply of NRT, if the patient wishes;
9. notifying the patient's primary care provider of these activities;
10. telephone follow-up at three

days, two weeks and one month post-discharge, preferably repeated at six and 12 months; and

11. referring appropriate patients to outpatient smoking intervention programs.

Improvements expected during the pilot of this intervention include documented increases in completed smoking assessments; identification of smokers' stage-of-change; smoking cessation counseling; appropriate management of nicotine withdrawal symptoms during hospitalization; increases in completed smoking assessments; understanding by patients and significant others of strategies for remaining smoke-free; referrals to outpatient smoking cessation programs; prescriptions of NRT after discharge; and post-discharge follow-up. The expected outcome is an increase in the percentage of patients who report remaining abstinent at follow-up. □

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The Indiana Prenatal Substance Use Prevention Program: Its impact on smoking cessation among high-risk pregnant women

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Cigarette smoking has been linked with adverse pregnancy outcomes since the 1940s¹ and is the most important cause of low birth weight in developed countries.² Cigarette use during pregnancy can also cause spontaneous abortion, fetal and perinatal mortality, abruptio placenta, placenta previa, premature and prolonged rupture of placental membranes, preterm delivery, and sudden infant death syndrome (SIDS). Although most women start smoking in their teens, the majority of female smokers are in their childbearing ages, 15 to 44 years old.³

Since 1991, there has been little change in the smoking rates among pregnant women in Indiana as seen in the *Table*.⁴⁻⁶ More than 32% of the women in Indiana who smoke are of childbearing age (25 to 34).⁷

The Indiana Prenatal Substance Use Prevention Program (PSUPP) was established in 1988 and is administered by the Indiana State Department of Health (ISDH) and funded by the Indiana Division of Mental Health. PSUPP's primary goal is to prevent birth defects, low birth weight, premature births and other problems associated with prenatal substance use including tobacco, alcohol and other drugs. PSUPP's objectives are to:

1. identify high-risk, chemically

Abstract

The Indiana Prenatal Substance Use Prevention Program (PSUPP) was established in 1988 to help pregnant women quit cigarette smoking as well as alcohol and drugs. PSUPP directors implement the Screen, Intervene and Follow-up (SIF) model to assess substance use and provide services to help clients stop smoking.

During fiscal year 1995, almost 25,000 individuals were impacted directly or indirectly by the PSUPP. Of these, 1,334 pregnant women were screened for substance use by PSUPP. Of the 987 women identified with a known substance use risk factor, 42.4% (418) were high-risk smokers (more than five cigarettes per day) and 9.9% (98) were medium-risk smokers (smoking between one and four cigarettes per day). PSUPP directors counseled their high/medium risk smokers an average of four times during their pregnancy.

The PSUPP appears to be effective in getting high-risk smokers to change their smoking behavior during their pregnancy. Approximately one-half (49.9%) of the 516 high- or medium-risk smokers decreased or quit smoking while participating in the PSUPP.

When surveyed, about 80% of the PSUPP participants stated that the knowledge they gained through PSUPP relative to tobacco use was "very helpful." Only two-thirds of the PSUPP clients responded that they "strongly agreed" with the statement that tobacco use causes babies to have a lower birth weight. While pregnancy may provide the "teachable moment" for women who smoke, more attention needs to be placed on making women more aware of the risks involved with smoking during pregnancy. □

1. identify high-risk, chemically dependent pregnant women; provide perinatal addiction prevention education; promote abstinence; provide referrals to treatment services; and conduct client follow-up;
2. provide public education on the hazards to a fetus of maternal use of alcohol, tobacco and other drugs; and,
3. facilitate education programs for professionals on how to identify high-risk chemically

dependent women and provide necessary counseling. Most PSUPP clients are referred by the Maternal and Child Health program (MCH) and the Women, Infant and Children (WIC) clinics. These women are screened for current use of tobacco, alcohol or drugs. PSUPP staff contact the at-risk clients and initiate counseling. PSUPP directors implement the *Screen, Intervene and Follow-up (SIF)* model

designed to assess substance use during pregnancy and provide/coordinate needed services. The assessment identifies the patient as being at low, medium or high risk.

To improve the management of high-risk pregnant women who are smoking, PSUPP staff provide health education services in Lake, Allen, Vigo, Pike, Spencer, Dubois and Warrick Counties. These interventions include helping the client to reduce her risk level on her own, as well as referring the client to a peer support group, outpatient treatment or an inpatient treatment facility. PSUPP directors also provide substance use education through local media campaigns and substance use education to providers through training sessions.

The client intervention has three components:

1. During the first visit, the hazards of smoking cigarettes to the unborn baby and the importance of quitting smoking are discussed. An educational/counseling plan is developed for the client at this time.
2. The program provides support and reinforcement. Clinic encounter records are stored in the client's chart to remind physicians and nurses to review progress, give a strong "no use" message to the client and provide positive reinforcement of her efforts.
3. On subsequent visits, one-on-one educational/counseling sessions and referrals are based on individual assessments.

In addition to specific client interviews, the PSUPP provides community-wide information regarding prenatal substance use.

Information is disseminated through presentations, seminars and workshops, health fairs, brochures and the media. The PSUPP staff impacted directly or indirectly nearly 25,000 persons in fiscal year 1995.

The purpose of this paper was to study the impact on smoking rates and awareness of smoking risks among pregnant women participating in a community-based prenatal substance use program.

Methods

During fiscal year 1995, a set of survey forms and data entry software were used to collect client information at all PSUPP sites. Client information included the following: demographic and clinical data, utilization/visit patterns, tobacco use history and status at entry into the PSUPP and upon termination. A client satisfaction survey was conducted on a random sample of all PSUPP clients to determine the perceived level of risk of tobacco use, the number of visits with PSUPP staff, client knowledge and satisfaction with the program. The effectiveness of the PSUPP interventions was assessed by comparing self-reported smoking at baseline (entry into the PSUPP) and at the end of the pregnancy and PSUPP intervention.

The smoking levels of the women were self reported and not verified using carbon monoxide or serum cotinine measurements. Intentional and unintentional errors are possible when clients are asked to recall past and present tobacco use. Some of the PSUPP clients would have stopped smoking without the intervention of the program staff. However,

without a control or comparison group of pregnant smokers, it is not possible to estimate the proportion who stopped smoking due to the program.

Results

Risk level: There were 987 women who were identified as substance users (74%). Of those, 418 were high risk smokers (42.4%) and 96 were medium-risk smokers (9.9%). Clients were classified as high risk if they smoked more than five cigarettes per day. Medium risk was defined as clients who smoked fewer than five cigarettes per day. Clients were classified as low or no risk if they reported no current tobacco use.

Demographic characteristics:

Race: Of the 513 identified as being high- or medium-risk smokers and whose race was known (race was unknown for one case), 80% (412) were white, 11.8% (61) were black, 7.4% (38) were Hispanic, and 0.6% (2) were classified as "other."

Age: While the mean age of the smokers was 22, 0.4% were 14 years of age or less; 9.1% were ages 15 to 17; 28.6% were 18 to 20 years old; 29.6% were between 21 and 24 years of age; and, 32.3% were 25 years of age or older.

Marital status: Of the 508 at-risk smokers where marital status was recorded (marital status was missing for six cases), the majority (75.4%) were unmarried.

Education level: Since 27% of the at-risk smokers were 18 years of age or less, it would be expected that about a quarter of the PSUPP clients would have less than a high school education based on their age distribution alone. However, among at-risk smokers where the number of years of education was

listed, nearly half (48.1%) had not graduated and 7% had eight or less years of education. On the other hand, 10.5% reported some college or other post-secondary education.

Historic cigarette use: Nearly two-thirds (61.8%) of all the 1,334 women who were screened indicated they had smoked sometime in their lives. Of the 514 at-risk smokers, nearly one-third (30.1%) reported that they began smoking before they were 15 years old.

Program intervention: The PSUPP directors worked directly with all smokers to assist them in efforts to stop smoking; 280 clients (54.5%) were also referred to on-site or external smoking cessation programs during their pregnancy. Forty high-risk smokers were referred to smoking cessation programs after delivery.

Of the 116 (88.5%) satisfaction survey respondents who reported the number of PSUPP visits, 88 (75.9%) reported they had visited two or more times with the PSUPP director to discuss their use of cigarettes, alcohol or drugs. Thirty-four (29.3%) of the clients had made two visits, and 32

(27.6%) had visited three times. Twenty-two respondents (19.0%) had visited four or more times. PSUPP directors contacted their high/medium risk smoking clients an average of 3.8 times.

Outcomes: Of the 989 clients who terminated from the PSUPP due to childbirth, 31.9% were smoking at the time of termination compared to 32.3% in 1993 and 43.9% in 1992. A comparison of the smoking rates for those who terminated from PSUPP in FY 1995 with the rates when women entered the program (some entered the program during FY 1994) found that 49.9% of those women who were smoking at the beginning of the program reported that they decreased or terminated their smoking; 70.3% of those smoking more than five cigarettes per day (high-risk clients) cut down or quit smoking.

Sixty-four (48.9%) of the 131 respondents to the satisfaction survey admitted using tobacco; of these, 35 (54.7%) had stopped, 23 (35.9%) had cut down and five (7.8%) planned to reduce their use of tobacco due to the information and help they had received from the program. Only one individual

(1.6%) admitted she planned to continue her use of tobacco after her baby was born.

The satisfaction survey asked questions about the knowledge gained through PSUPP related to tobacco use. Respondents indicated that the substance abuse information was "very helpful" (79.7%), they knew "very much more" about tobacco (76.2%), they "strongly agreed" that tobacco can harm an unborn baby (80%), and they "strongly agreed" that smoking causes babies to have lower birth weights (66.2%). More than one-half (55.7%) of the respondents reported that they received information that showed them why prenatal care is important, and 58% felt they had received help that was increasing their general health status. A majority (67.2%) felt that they were given information that would help them have a healthier baby.

Discussion

The results of this study indicate that the PSUPP intervention was somewhat effective in helping clients reduce or stop smoking during pregnancy and that this intervention was associated with an increased awareness and sensitivity by clients to the harmful effects of tobacco use during pregnancy.

These results are consistent with previous studies that show a high proportion of pregnant women are interested in cessation programs and are motivated to quit.⁸ These studies underscore the need for intervention during the "teachable moment." Pregnancy may be a critical time to promote sustained changes in smoking behavior among women.⁹

Our data indicate, however,

Table

Smoking rate (%) among women who deliver in Indiana, 1991-1993⁴⁻⁶

Amount of smoking	1991	1992	1993
One pack/day or more	7.9	7.3	7.1
Five - 19 cigarettes/day	12.9	12.4	12.0
Fewer than five cigarettes/day	4.6	4.7	4.5
Non-smokers	74.6	75.6	76.4

that a significant fraction of pregnant smokers in PSUPP do not quit. The reasons for this are not clear. The results from the client satisfaction survey indicate that approximately one in five pregnant women in PSUPP do not "strongly agree" that tobacco use can harm their unborn child; one in three do not "strongly believe" that smoking affects the baby's birth weight. These data show a need for more persuasive methods in health education. PSUPP is one of many community programs to help women stop smoking during pregnancy. Practitioners are encouraged to refer their patients who smoke to such programs.

In conclusion, this study suggests that a community-based, prenatal substance use program intervention may decrease smoking rates and increase awareness of smoking risks during pregnancy. Still, a significant proportion of clients continue to smoke and deny the risks of tobacco use are real and apply to their pregnancy. As with abuse of other substances, reasons supporting continued use must be considered. This provides direction for future efforts by PSUPP. □

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Tobacco education in low-literacy individuals

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Low literacy refers to the 40 to 44 million American adults, almost one in five, who have poorly developed skills in reading, writing, listening and speaking. These are people who are unable to read and comprehend directions that most of us take for granted, such as instructions on a bottle of vitamins. When confronted with complex pamphlets, booklets or instructions, the marginally literate person easily becomes overwhelmed.¹ This presents a challenge to health education providers, as methods of instruction and advising must be adjusted to meet the needs of this low-literacy population.

Measures of literacy are not interchangeable with measures of intelligence. There are people with low-literacy skills in every walk of life and at every socioeconomic level. There is a preponderance, however, of poor literacy skills among the following groups: low income, inner-city inhabitants, older Americans, blue collar workers, the unemployed, and those with less than a high school education. These are the same subpopulations who have the highest smoking prevalence in our country.²

Generally, less formal education implies a greater need for patient education. This seems obvious, but studies reveal that in practice physicians talk more to patients who ask questions, typically those with a higher education.³ Marginally literate patients may not grasp the impli-

Abstract

Approximately 20% of the adult population in the United States have low-literacy skills. The subpopulations with the highest incidence of low literacy are nearly identical to those with the highest prevalence of tobacco use. Low-literacy smokers are more likely to underestimate the risks related to tobacco use, have less social pressure and support to quit smoking, may experience more life stress and consequently rely more heavily on nicotine use for stress reduction and require more assistance in developing a sense of self-efficacy. This indicates a need to modify smoking cessation methods of counseling, content and selection of educational materials for the marginally literate. Currently available low-literacy materials are listed, and suggestions for adjusting or developing materials are made. □

cations of a newly prescribed treatment because of limited anticipatory skills and problem-solving abilities. There is an increased need for interaction, but the patient's silence is often misinterpreted as understanding and acceptance. This leads to an inability to follow medical advice, and the patient may later be unfairly labeled as noncompliant.

Today, we rely heavily on written materials to supplement oral instructions and information for patients. Unfortunately, there is a wide disparity between the literacy capabilities of the reader and the level at which most educational materials are prepared. Meade and Byrd⁴ analyzed the readability of smoking cessation materials and found that most are written at a level above grade 9, and many at a scientific or professional level. This complicates the ability of the health care provider to supply adequate instruction and explanation.

In a follow-up, randomized controlled study, the same investigators demonstrated a significant increase in comprehension for subjects receiving smoking materials written at a fifth grade level compared to those who received the same information written at a 10th grade level and controls who received no information, (13% and 18% increase, respectively).⁵ Materials adjusted for literacy are effective.

General considerations in counseling low-literacy smokers
Counseling may be more time consuming for low-literacy patients due to the reasons previously mentioned and the inability of the patient to pursue independent learning activities. Using a designated office worker as the smoking counselor may be considered. Establishing an effective office smoking cessation program with this format is outlined by the National Cancer Institute as a part

of its "How To Help Your Patients Stop Smoking" program.⁶

Group sessions are a second alternative for better time management in smoking cessation counseling. Highly interactive meetings, with group members responding to questions rather than didactic presentations, are most effective. As group cohesion builds, motivation increases.¹ The smoking cessation classes offered through Wishard Memorial Hospital in Indianapolis consist of three weekly two-hour meetings. Attendance is difficult if the sessions are more frequent or if they are spread over longer periods of time. Often the participants use public transportation and must arrange for changes in work schedules and child care. By requiring several sessions, difficulties in attending begin to outweigh the benefits of participating.

There are several differences between high- versus low-literacy smokers that have implications for adjusting interventions. Low-literacy smokers are more likely to underestimate the individual risk of tobacco use and the resulting need to quit.⁷ It is critical in motivating this group to personalize the message to stop smoking by relating it to current health status or concerns, i.e., cough, shortness of breath, child's asthma.

With a higher prevalence of tobacco use in the low-literacy population, there is less social pressure to quit.⁸ In fact, quitting smoking may even be perceived by others as threatening, and consequently, there is often little social support for stopping. Health care providers must be readily available and able to supply this needed support. Quitting smoking is extremely difficult, and an enthusiastic advocate can be

pivotal in a successful outcome.

Many smokers engage in tobacco use to relieve stress. Job strain and the pressures of daily living may be greater among those subpopulations associated with low literacy,² and addressing stress reduction is another important element in the overall program of smoking cessation. Because problem-solving skills may be inadequate, the health care provider must assist in personalizing or individualizing stress reduction methods to the patient's own circumstances. For example, a harried mother of toddlers may

not be able to understand the use of guided imagery for stress reduction, but she can play music, sing, dance or read with her children. The essential point is that help is needed in identifying a variety of simple stress relievers that can replace smoking.

Another consideration in managing low-literacy tobacco-dependent individuals is the importance of maintaining a positive supportive attitude toward the patient. Although this is essential for all smoking assistance programs, it may be more crucial for those with deficient

Table 1

Commonly distributed pamphlets analyzed for readability via the Fry Graph

Publication	Reading level
"Facts About Cigarette Smoking" American Lung Association Publication #0171	15th grade
"Facts About Nicotine Addiction and Cigarettes" American Lung Association Publication #0182	12th grade
"Facts About Secondhand Smoke" American Lung Association Publication #0006	11th grade
"Yes, You Can Quit Smoking For Good!" American Lung Association Publication #0480	Sixth grade
"Clearing The Air" National Cancer Institute Publication #941647	Sixth grade

literacy skills.¹ Commonly, minimally competent people have already suffered many frustrations, embarrassments and failures. A judgmental or demeaning manner may increase stress and alienate the patient. Interference from stress, anxiety or other distractors can affect attention and comprehension and should be addressed and eliminated or minimized before teaching/counseling sessions.

Applying techniques to the low-literacy population

Guidelines for effective implementation of health interventions for low-literacy patient education have been developed.¹ These guidelines incorporate theories of education and behavior and provide practical suggestions for adapting materials and methods to those with special needs. At Indiana University Medical Center's health care facilities, these recommendations have been applied to the National Cancer Institute's "How To Help Your Patients Stop Smoking" program for use in both individual counseling sessions and in formal group smoking cessation classes. This program involves four health care provider activities that begin with the letter "A" - ask, advise, assist and arrange.

Ask - Smoking status is entered with the vital signs on patient encounter forms and is determined at each appointment. A smoking history is obtained through interview.

Advise - A direct statement advising quitting is made. This should be phrased in terms relevant to the patient. Instead of an abstract concept such as "to reduce the risk of lung cancer," try to convince the patient using a

concrete, familiar idea such as "to help you live to enjoy your grandchildren."

We assess readiness to stop tobacco use by inquiring if the patient has thought about quitting, wants to quit and if he/she has attempted to quit smoking before. We record information in our encounter notes rather than asking the patient to complete an assessment form. Limiting the amount of written material confronting the patient is less threatening.

Assist - Behavior is more likely to be adopted if it is perceived as achievable.⁹ Because many smokers have attempted to quit in the past and have been unsuccessful, smoking cessation is often considered unachievable. Further, the low-literacy population is likely to have suffered many inadequacies in the past, which may have created an expectation of poor results. Break the smoking cessation process into many small steps, so the participant may experience interim successes and build confidence in the process of this behavior change.

In our smoking counseling, we begin with congratulating the person because he or she has actually arrived at or consented to an appointment for initial smoking counseling. We try to build on all accomplishments and learn from any failings. Reinforcing all achievements, such as having tried smoking cessation before, reducing the number of cigarettes smoked per day, increasing physical activity or identifying alternative behaviors for stress reduction, builds confidence and a sense of competence and self worth. As the patient begins to feel empowered, the locus of control will shift from the nicotine addiction to the individual.

Assistance in setting a quit date is necessary. Often patients will agree to stop smoking and set that same day as the quit date. Because they are not yet prepared with adequate skills or information for this endeavor, a more realistic date must be considered.

Nicotine addiction evaluation, using the Fagerström tool,¹⁰ is helpful in determining the need for nicotine replacement therapy. This is particularly true in the African-American population, as a higher nicotine dependence is demonstrated with relatively fewer cigarettes consumed.¹¹ This means that the number of cigarettes smoked per day may not accurately reflect the level of nicotine addiction. Providing this information is helpful to the African-American patient as he or she may feel frustrated that smoking cessation is so difficult even with a relatively "light habit."

Most of our patients prefer and benefit from nicotine replacement therapy, and patches usually are prescribed. Instructions for nicotine gum can be confusing to low-literacy patients, and reverting to regular gum chewing can be difficult to avoid. Written instructions for nicotine patches are adjusted for low literacy and are carefully reviewed with the patient. A contract is signed that delineates the quit date and the patient's intention not to smoke while using nicotine replacement. CIBA Corp., through its patient support program, provides HabitrolTM patches for our indigent patients and those without insurance who are unable to pay.

Arrange - At the first appointment, quitting strategies are discussed, the decision to quit is reinforced, and the suggestion of tapering is made. At the second

appointment, usually one to two weeks later, a two-week supply of patches or gum is provided. Concerns and questions are addressed, and all progress thus far is supported. At appointment three, progress is reviewed, problem solving is employed for any lapses, and two more weeks of replacement therapy is provided with appropriate refills. Subsequent visits and telephone follow-up are as needed. Patients are called at six months to assess smoking status.

Smoking cessation materials:

Suggestions for preparation

There are few self-help materials available for the low-literacy population. *Table 1* lists a sampling of the most frequently distributed smoking cessation pamphlets at IU Medical Center and Wishard Memorial Hospital and health clinics. The reading level was analyzed using the Fry readability graph, a commonly used tool.¹ *Table 2* outlines three publications that have components appropriate for our target population.

Because we have been unable to find booklets that satisfactorily match our population in literacy level, ethnicity or socioeconomic status, we are developing our own. Doak et al have made many recommendations, with rationales, for the preparation of locally produced materials, which are briefly summarized in the following paragraphs. These materials can be very effective because they more closely reflect the community and incorporate familiar faces and speech, which increases understanding.

The use of audio and video media is advised. Simple audio-tapes may be used to reinforce information. These tapes should be

Table 2
Smoking cessation publications with special attributes for unique subpopulations

Publication	Comments
"How To Quit Cigarettes" American Cancer Society Publication #2604-LE	Reading level = fourth grade. Clear "survival message." Culturally diverse. Depicts blue collar workers. Effective illustrations. Conversational writing style.
"Special Delivery ... Smoke Free" American Cancer Society Publication #88-IC-No.2422.01-LE	Reading level = fourth grade. Developed for pregnant smokers. Workbook format with many activities appropriate for all types of smokers. Clear "need to know" message. Effective illustrations. Conversational writing style. Most interactive publication located to date.
"Pathways to Freedom" Fox Chase Cancer Center, Philadelphia, PA. Distributed by the American Cancer Society	Reading level = sixth grade. Developed specifically for African Americans. More than "need to know" message, but excellent adaptation for targeted population. Conversational style. Effective illustrations.

only five to 10 minutes long and supplemented with a handout. The patient can easily operate a tape player and rewind and relisten if certain concepts are not well understood. This can conveniently be implemented in the clinic or office waiting room with the use of ear phones. Information such as patch placement, relaxation techniques, chemical versus behavioral addiction or healthy snacking are some examples of possible taped topics.

Videotaping an actual smok-

ing cessation class that has been personally conducted can be useful for individual viewing. VCRs can require a higher level of expertise to operate and do not lend themselves as easily to replay as tapes. Often, though, this medium is more interesting to the patient.

Locally produced handouts are also effective provided a few principles are followed in their preparation. When developing educational materials for low-literacy patients, provide the

smallest amount of information possible to get the central idea across. This allows the patient to focus on the "survival message." The low-literacy adult needs to know enough about his or her condition to understand the importance for continuity in treatment and the consequent required behavior. Extraneous information can be confusing and cause the real message to be lost.

The text in the handouts should be in simple, conversational language and in the active voice. The vocabulary should be basic with possibly new or difficult words defined. This style is easier to relate to and, therefore, more easily understood.

Printing is done in lower case lettering which, because of more detailed configurations, is easier for poor readers to recognize than capital letters. Black lettering on white or yellow paper is most visible, which is important if the patient is reading in a poorly lit area. Ideas that need to be stressed can be underlined or printed in bold, not spelled out in all capitals, as capital letters are less well recognized by the marginal reader.

Illustrations should be simple, not distracting, and should add to the understanding of the content. They should be beside the written text rather than above or below, as the lower literacy reader loses his place easily. Pictures are best as plain ink drawings of realistic figures with whom the patient can identify. Caricatures can be confusing and may be interpreted as condescending. Elaborate pictures are also confusing and distracting. Even drawn stick figures can be more effective than photos or detailed drawings. The patient can better relate to pictures

of anatomy when it is depicted in the context of the body. Again, accuracy is essential. Lower literacy patients view things as concrete and understand drawings exactly as they are drawn.

Anecdotally, we have found that people of all literacy levels prefer our uncomplicated medical instruction and materials. This is confirmed in the research findings of Ley and colleagues.¹² Succinct, clear "survival message" information is better understood and easier to follow. Thus, these guidelines are equally effective in preparing materials for all populations.

Our challenge

Very little prepared information is available for the low-literacy population. Why do those with the highest prevalence of smoking and the greatest need for information and support have the fewest resources for smoking cessation? The tobacco companies have not overlooked attending to these subpopulations. Notice the billboards, store advertising and promotional items in less affluent neighborhoods. Messages are clear, succinct and targeted specifically to the surrounding community. The principles of effective communication for those with low-literacy skills are being used by our adversaries. We health care professionals need to demonstrate the same proficiency in preparing positive health messages for tobacco dependent, low-literacy people. □

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Indiana laws regarding tobacco control

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A recent report by the Centers for Disease Control and the National Cancer Institute on state tobacco legislation shows significant variation in tobacco control laws among states.¹ As of June 30, 1995, there were 1,238 state laws regarding tobacco control in effect. Despite this fact, however, these laws are not adequately protecting our most vulnerable population, the youth of America. Since approximately 90% of regular users of tobacco (cigarettes or smokeless) become dependent on nicotine before the age of 20, the relative ineffectiveness of laws limiting youth access is troublesome. Underage buyers can purchase tobacco from retail outlets about 73% of the time and from vending machines about 96% of the time.

The following is a brief summary of state laws on tobacco control, including Indiana legislation.

Youth access

The sale and distribution of tobacco products is prohibited in all states, including Indiana, to people under the age of 18. In Indiana, the distribution of tobacco to a person under the age of 18 as a means of promoting or advertising the product is prohibited. The penalty for violating these laws in Indiana is a Class C infraction and carries a minimal fine. Penalties for first violations to business owners, managers or clerks range from

fines of \$10 to \$50 in 11 states to fines of up to \$1,000 or more in four states.

Vending machines

Thirty-two states, including Indiana, have restrictions on youth access to vending machines that contain tobacco products. In Indiana, vending machines are restricted to workplaces, licensed facilities and private clubs accessible only to people over age 18 or to locations where the machine can be operated only by the owner or an employee who is at least 18.

No state has banned the sale of tobacco products through vending machines. In 12 states, vending machines are banned from areas accessible to young people. Only 23 states have penalties for first violations of restrictions on the location and supervision of tobacco vending machines. By 1993, 161 cities and counties in the U.S. had passed ordinances that partially or completely ban tobacco vending machines;² none of these cities or counties were in Indiana.

Excise taxes

The United States has among the lowest tobacco excise taxes in the world. State taxes on cigarettes vary from 2.5 cents per pack in Virginia to 75 cents per pack in Michigan. The national average is 31.5 cents. Washington state increased its cigarette tax to 81.5 cents per pack effective July 1, 1995. Indiana has an excise tax per pack of 15.5 cents. Recent efforts in Indiana to increase the tax were unsuccessful.

One of the most successful strategies to reduce tobacco use

among youth is to increase the price of tobacco products. It has been estimated that an increase of \$2 per pack in cigarette taxes would result in 7.6 million fewer smokers in the United States.³ Tobacco companies aggressively fight any efforts to increase tobacco taxes.

Advertising

Only nine states restrict tobacco advertising. These laws generally limit advertising near schools and on public property. Indiana has no laws restricting tobacco advertising.

Private workplaces

Indiana has no private workplace laws that restrict smoking. Twenty states and the District of Columbia limit smoking in private work sites. California has either no smoking or separate ventilation for smoking areas in private work sites.

Public places

Indiana restricts smoking to designated areas in government buildings, public schools and classroom buildings at state educational institutions. In 1987, largely due to a 12-year effort by Rep. John W. Donaldson, Indiana passed the Indoor Clear Air Act. This allowed the banning of smoking in public arenas during sporting events. Indiana has no laws that restrict smoking in day care facilities or restaurants. In 1993, Indianapolis prohibited smoking in government buildings; jails and public housing were exempt from this law.

Many local communities in

Indiana and the United States have adopted local ordinances restricting smoking in public places and access of underage youth to the sale of tobacco products.² The tobacco industry has adopted an aggressive program in support of preemptive state laws that prohibit local jurisdictions from having tobacco control ordinances that would be more restrictive than state law. In 16 states, laws preempt local governments from enacting ordinances more restrictive than state laws related to the sale of tobacco products to minors.

Successful tobacco control in Indiana, particularly aimed at preventing tobacco dependence among our youth, will require commitment and increased involvement of health professionals, significant increase in public education, and both state and local legislation. Of historical interest is that in Indiana in 1912 the percentages of boys of different ages who were using "white coffin nails" were: 12 years, 15%; 13 years, 20%; 14 years, 38%; 15 years, 29%; 16 years, 57%; and 17 years, 71%.⁴ Indiana law in 1912 (Section 1641, First Revised Statutes) stated that the dealer who sells to a child under 16 any kind of tobacco may be prosecuted for his act. Today, some 84 years later, the magnitude of adolescent and teen use of tobacco products is similar to 1912, and yet children today can buy tobacco illegally approximately 80% of the time.

Elsewhere in this issue of *Indiana Medicine* (see page 132), data are presented that indicate widespread public support for legislative restrictions on youth access to tobacco and for increases in tobacco excise taxes. The public is becoming aware of recent

alarming data that show increased use of tobacco products by adolescents and teenagers.⁵ Unfortunately, most states are unable to mount serious tobacco control legislative initiatives because of lack of expertise and funding. The tobacco industry is remarkably well-funded and organized to either squelch proposed tobacco control legislation or initiate legislation favorable to tobacco interests. Several states, however, including Florida, Mississippi, Minnesota and Massachusetts, have developed bold and innovative legal tobacco control strategies.⁶ Recently, the National Cancer Institute awarded a \$950,000 grant to Northeastern University School of Law and the Tobacco Control Resource Center Inc. to develop effective legal strategies in support of tobacco control interests of states, municipalities and private parties.⁷ These efforts may provide the necessary legal tools to address the overwhelming public mandate for restrictions on youth access to tobacco products.

Legislative efforts would also be enhanced by grass-roots coalitions of private and public organizations. In Indiana, for example, organizations including the Indiana State Medical Association; the Indiana Hospital Association; public and private universities and colleges; voluntary health organizations such as the American Lung Association of Indiana, Indiana chapters of American Heart Association and American Cancer Society; the Indiana State Health Department including Project ASSIST; the Indianapolis Alliance for Health Promotion; Indiana Chamber of Commerce; local and state government;

citizens groups; and local law enforcement agencies, all must come together and coordinate effective tobacco control education and legislative initiatives. The health and future of the youth of Indiana depend upon our resolve to address this critical public health problem. □

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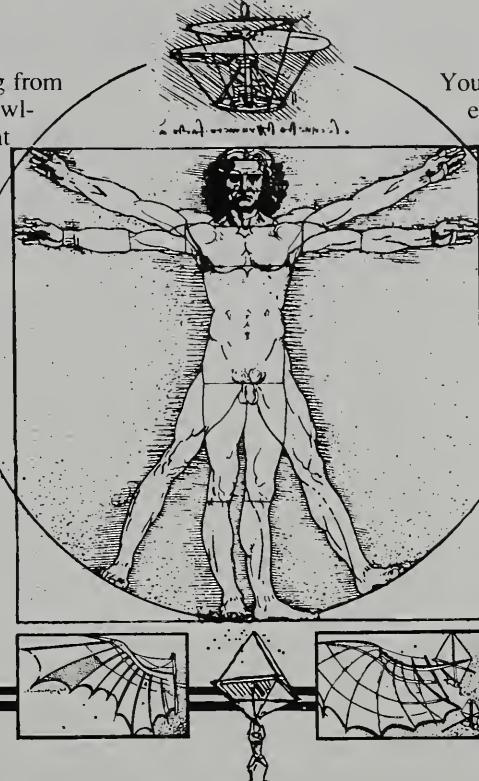
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Ethical responsibilities of physicians in tobacco control

Margaret Gaffney, M.D.
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Tobacco has been much in the news recently. In mid-July 1995, the American Medical Association reported that internal documents from Brown and Williamson Tobacco Corporation "offer detailed and damning evidence" that the industry covered up the addictive and cancer-causing impact of cigarettes for three decades.¹ On Aug. 10, 1995, President Bill Clinton declared smoking to be a "pediatric disease" and announced his intention to allow the Food and Drug Administration (FDA) to regulate tobacco in an attempt to protect children from nicotine addiction. That same day several major cigarette manufacturers responded by filing suit against the FDA, claiming the agency lacks proper authority to regulate tobacco.² On Oct. 19, 1995, R.J. Reynolds Tobacco Company placed a prominent ad in the *Washington Post* and *The New York Times* newspapers that rejected the proposal to curb teen smoking through FDA regulations, citing the fact that all 50 states already forbid tobacco sales to minors.³ Several times each week the network nightly news carries some bit of information on this "war" regarding tobacco; medical journals and the popular press frequently contribute to the debate.

Tobacco is under siege in the United States and for clear and convincing reasons. Despite tobacco industry vague claims to the contrary, the following facts are well established. Smoking is

responsible for 90% of lung cancers in men and 79% in females, with an overall rate of 87%.⁴ In 1987, lung cancer achieved the dubious distinction of surpassing breast cancer as the number one cause of cancer-related death in women.⁵ Smoking accounts for 30% of all cancer deaths, and for nearly one-in-five of all deaths in the United States. The American Cancer Society estimates that smoking is related to about 419,000 deaths in the United States each year; the World Health Organization estimates that about three million people worldwide die each year because of smoking-related illness. In addition to lung cancer, tobacco use is closely associated with cancer of the mouth, larynx, pharynx, esophagus, pancreas, cervix, kidney and bladder.⁶

The litany of ills related to tobacco is not limited to cancer. Smoking also is responsible for 80% of chronic lung disease, including emphysema, a major cause of suffering and death.⁷ Smoking accelerates atherosclerotic plaque development in arteries and greatly contributes to heart disease and stroke. The American Heart Association estimates that nearly one-fifth of deaths due to cardiovascular disease are attributable to smoking. A smoker's risk of heart attack is more than twice that of a non-smoker's, and his/her risk of sudden cardiac death is two to four times greater than a nonsmoker's.⁸ Smoking also increases a person's risk of peripheral vascular disease, especially when coupled with other health problems, such as diabetes.

In the face of such overwhelm-

ing evidence of the devastating consequences of smoking and smokeless tobacco use, what should be a physician's response, to individual patients and to society, with respect to public policy?

Traditionally, the physician occupies the roles of healer and teacher. Indeed, the word "doctor" means to teach, presumably first the patient at hand, and then perhaps students, colleagues and others. The doctor's duty is to learn the truth (facts) about the medical condition, the diagnosis, prognosis and therapeutic options, and to communicate these to the patient. This professional obligation reflects the moral principle of beneficence: to do or promote good, to prevent harm. This positive obligation is often coupled with an even more stringent injunction, that is to "do no harm," the principle of nonmaleficence. Until 30 years or so ago, physicians were quite comfortable making decisions based primarily on their own notions of what was in the patients' best interests, and the paternalistic model of medical care prevailed.

The doctor's knowledge, skills and desire to do what is best for the patient are balanced by the patient's own wishes. The principle of autonomy, or right of self-determination, was first articulated by Justice Benjamin Cardozo in 1914 with the words, "Every human being of adult years and sound mind has a right to determine what shall be done with his own body."⁹ Robert Veatch of the Kennedy Institute of Ethics has written much about the patient-physician relationship and

medical ethics. He describes autonomy as a "... negative right, or a liberty right. It generates a right of noninterference."¹⁰ Put another way, autonomy respects the rights of adults who are competent ("of sound mind") to "... formulate their own plans without interference from others."¹¹ And in the context of medicine, autonomy recognizes patients as moral agents, free to accept or reject medical therapy or advice.

Autonomy has gained ascendancy as a moral principle in the past 25 years, and for the most part autonomy has become a trump card of sorts, medically and morally. Courts have supported this pattern; indeed, it is difficult to imagine many scenarios now in which physician beneficence would take precedence over a patient's autonomy. This, it seems, is the heart of the matter, the situation in which an autonomous patient who is engaged in any risky behavior such as smoking, sky diving, auto racing, overeating or sunbathing, presents himself to the doctor who is morally and professionally committed to benefiting that patient.

A third principle – the principle of justice – needs consideration also. Broadly speaking, justice is concerned with what is due or owed to others, including the patient, and what would be a fair distribution of burdens and benefits. Discussions of "justice" often involve money, resource allocation, insurance coverage and the like. In the context of patients who are involved in risk-taking behavior, the notion that an autonomous patient should bear the cost, financial as well as physical, of a "freely chosen"

behavior is reflected in many insurance rating policies as well as other public policy suggestions.

Notions of justice must also acknowledge that certain groups suffer more profoundly the effects of tobacco use than do other groups. Specifically, African-American men have a higher mortality rate and lower five-year survival rate for lung cancer than do white men and all women.¹² Within the patient-physician relationship, justice requires that the physician be knowledgeable about the patient and his life, his behaviors whether healthy or not, freely chosen or otherwise. The physician must clearly and compellingly inform the patient of the risks and logically expected outcomes of whatever the unwise activity (habit) is. In addition, the physician should offer advice, support and referral, if necessary, to help the patient alter the behavior.

Some might argue that a physician, perhaps in order to underscore the seriousness of the risk, might refuse to treat or to continue to treat a patient. For example, a dermatologist may feel that it is appropriate to discharge a sunbathing patient, or an internist may fire a patient who is a recalcitrant alcoholic. There are many other examples, a few of which may be understandable. But putting aside legitimate questions of what constitutes truly "free choice," refusing to treat such a patient seems at worst to reject the notion of respect for persons, and at the least to break faith with the patient, to diminish the fiduciary relationship between patient and physician. And it is hard to see how withdrawal by a physician from the care of that patient could

benefit the patient, the insurance pool or any other segment of society.

There are some important limitations on personal autonomy and on the physician's duty to respect it; considering justice issues helps illuminate these. One person's autonomy and personal pursuit of life plans ought not harm or injure another's life or health. Specifically, in view of the harm cigarette smoke may do to a nonsmoking child or fetus, a physician has a more stringent obligation to educate and counsel a patient to quit smoking. The same sort of risks exist for non-smoking spouses or partners, office workers, even passers-by on the street. But, if the latter are adults, they are free to make their own choices. Children are not, and thus physicians have an increased obligation to protect them, that is, to act paternalistically. That being said, it does not follow that a physician should refuse to care for the patient.

Neither physicians, loving family members, insurance rates, non-smoking airplanes, restaurants, offices or other public health measures can force an individual to change his/her behavior. There is evidence, however, that some public policies and opinions may influence habits, reflected by the fact that per capita cigarette consumption decreased 37% from 1973-1992 in the United States. And a recent article in the *Archives of Internal Medicine* entitled, "An Analysis of the Effectiveness of Interventions Intended to Help People Stop Smoking," concluded with a strong statement of advice to physicians: "Clinicians should take the time to give a brief period of advice on quitting smoking to

all their patients who smoke. In terms of saving lives, such advice constitutes a cost effective use of their time. Additional encouragement, and support through the early stages after stopping smoking, improve the likelihood of success on average ..."¹³ One could argue from a purely practical standpoint, as well as from a nonconsequentialist perspective (autonomy and justice), that a physician ought to use every patient visit as an opportunity to educate, cajole, support and fully care for a patient who is smoking or engaging in some other risky behavior.

In conclusion, physicians who care for patients who smoke or engage in other seriously risky behaviors face a difficult dilemma: how to respect the individual's choice while at the same time fulfill one's professional responsibility to the patient. Balancing

respect for the person's autonomy with the desire to prevent the harm inherent in tobacco use requires patience, insight and wisdom. Consideration of issues of justice, not only for the patient but also for others, may help guide the physician in the relationship with the patient. The physician is obligated to provide the patient with the best possible information regarding the behavior at issue, and faithfully to encourage and support the patient as he/she struggles to change the behavior or to live with the consequences. □

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Tobacco curriculum for medical students, residents and practicing physicians

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Smoking is the primary cause of premature morbidity and mortality in the United States today. Other types of tobacco exposure, including chewed tobacco and passive smoking, also account for significant risk.

From a public health perspective, advice from physicians is one of the most potent messages that encourages smokers to quit. While intensive smoking treatment programs have higher success, only about 10% of smokers ever attend them, while 70% of smokers see a physician annually. However, surveys show that generally fewer than 60% of patients report "ever" being told by a physician to stop smoking. It has been 15 years since formal recommendations were made by the AMA that physicians routinely address smoking with their patients.¹ According to a recent national survey,² 70% of internists in practice believe that counseling about smoking was "worth" a separate office visit, yet about the same number stated they "never" made such appointments. Most physicians reported feeling frustrated and ineffective in addressing smoking when they do so at regular visits. But even among primary care patients, exit surveys suggest that only 20% to 40% of smokers are asked about smoking on a regular basis.

It is time for this pattern to change. Simple, highly effective techniques are now available for physicians to use in smoking intervention, but adequate training

Abstract

Smoking and other tobacco exposure have been recognized for several decades as the most significant preventable factors in premature morbidity and mortality. Most physicians believe they should address the issue of tobacco intake with their patients but are rarely provided with adequate training or support to do so effectively. Recent research identifies several ways in which physicians can have substantial impact on patient smoking rates, by use of very brief patient-centered counseling and by prescribing nicotine replacement therapies. This paper describes a model curriculum for medical students, residents, medical faculty and community physicians that can be integrated into current training and teaching practices. The goal is to create a "preventive" intervention perspective to smoking that is effective, practical, efficacious and cost-effective. □

is important. This training must be provided starting in medical school and then be supported by creating a "culture of prevention." Adequate training must include training in how to implement intervention, not just information regarding the adverse health effects of smoking.

The effectiveness of physician intervention

Physicians often report feeling ineffective in helping patients to stop smoking. However, multiple studies show that physician input can increase long-term quit rates in a general patient population up to almost 20%, an 8- to 10-fold increase over people trying to quit completely "on their own" and a statistic of tremendous public health significance. While a quit rate of 20% may still seem low, stopping smoking is a very personal decision and is often a long-term process. Even the most

intensive group smoking programs rarely show long-term quit rates over 40% – and that is with highly motivated smokers. Therefore, physicians need to keep realistic expectations of what is achievable.

Extensive research supports the effectiveness of physician intervention.^{3,4} Simply advising patients to quit will increase the natural quit rate from about 2% to 4%-6%. Providing self-help materials increases this rate further; planning a follow-up visit is even more effective, perhaps because it conveys the seriousness of the physician regarding the issue. Randomized clinical trials, many funded by the National Cancer Institute,⁴ testing more comprehensive interventions including brief behavioral counseling and nicotine replacement therapy (NRT), showed extended abstinent rates of 10% or more, with up to 20%-30% quit rates for

motivated smokers who returned for follow-up visits and made extended use of NRT.

NRT, including the nicotine patch and nicotine gum, has been shown to be effective in multiple studies, but is another tool currently underutilized by physicians. Evidence is strong that these products help substantially in the initial phases of quitting. Smoking entails both physiological dependency and psychological dependency. Even lighter smokers (one-half to one pack/day) benefit from NRT for the addictive aspects of smoking, while they learn new habits necessary to become "non-smokers." NRT treats the physiological dependency; when combined with brief counseling, self-help materials and follow-up, the psychological dependency is also addressed.

Is smoking intervention cost-effective for physicians to provide? In fact, when compared to other health care expenditures, smoking intervention is highly cost-effective.²⁵ Computer models suggest that even the briefest physician counseling – one resulting in an increase of extended quit rates of under 3% – saves almost \$4 in health care costs per dollar spent, while smoking intervention with hospitalized patients may save more than \$70 per dollar spent. Smoking intervention is thus one of the most effective uses of preventive health care dollars.

Training for effective physician-delivered smoking intervention

The long-term goal of training in smoking intervention is to establish both the necessary attitudes and the skills among physicians, so that all patients who smoke are

virtually ensured of receiving appropriate smoking intervention. Attitudes about the risk associated with smoking have changed considerably; however, belief that physicians could and should play a role in smoking intervention lags behind. One reason may be that skills to provide such intervention are still not being systematically taught to physicians. Such skills include how to counsel smokers, as well as how to set up an office system which reminds and supports the physician to do so. The goal is for intervention to become part of standard practice and be implemented in the same systematic and thorough manner as hypertension management is currently.

To achieve this, training needs to start in medical school and be continued and reinforced up through post-graduate and continuing medical education. Therefore, attending physicians and preceptors with whom medical students and residents interact must also value smoking intervention, or the impact of teaching medical students may be lost. Staying abreast of advances in smoking intervention also needs to be established as a high priority with state medical boards, medical associations and medical benefit agents.

The fundamental components of a tobacco curriculum address four areas of competency:

1. knowledge of the health risks of smoking and benefits of quitting;
2. knowledge of tobacco use as a complex biopsychosocial phenomenon;
3. skills in providing counseling intervention; and
4. setting up an office system

and/or team to facilitate intervention.

Much of the teaching in these elements can be incorporated into already existing training structures. More focused and intensive training can generally be accomplished in 2 1/2 to 3 hours, and then reinforced during regular clinical precepting.

Medical students – A recent survey conducted by the AMA⁶ showed that while smoking is addressed as part of a required course by 57% of medical schools, it is rarely emphasized. When it is addressed, it has been primarily as a major health risk for such diseases as lung cancer, pulmonary disease and coronary vascular disease. Even here, it may be underemphasized; the Cancer Education Survey⁷ of U.S. medical schools reported that prevention and cessation of smoking was the least likely cancer prevention lecture topic to be offered. The importance of smoking as a risk factor for other diseases, including diabetes, stroke and peptic ulcer, or in obstetric or surgical care, is even less likely to receive attention. The health benefits of quitting also are not well reviewed. Much less common is training that addresses nicotine as an addictive substance or tobacco use as a complex psychosocial behavior. Finally, formal training in how to address smoking clinically, other than to identify tobacco use status, is usually not provided. Barriers to such training may be the competition for time from other courses and limited patient access during the first two years.

Information regarding tobacco and smoking as significant medical risks can be integrated into a wide range of the medical courses.

Table 1

Example of patient-centered counseling

Basic health advice: "I notice that you are a cigarette smoker. Smoking is harmful to your health. In many cases, the harmful effects of smoking can be reversed. As your doctor, I must advise you to stop smoking." (Personalize to patient's medical condition.)

Motivation to stop smoking

- ✓ How do you feel about being a cigarette smoker?
- ✓ Have you thought about stopping?
- ✓ What reasons would you have for stopping?
- ✓ What do you understand about your health reasons to stop smoking?
- ✓ What do you like about smoking? (*Important question for a committed smoker.*)

Past experience with stopping smoking

- ✓ Have you ever stopped smoking?

Yes

- * When was the last time?
- * How did you stop?
- * Any problems?
- * What helped you?
- * How did you feel?

No

- * Have you made any other changes?
- * When? Any problems?

Anticipated problems with stopping

- ✓ What would be possible problems or barriers to stopping?
- ✓ Assess appropriateness for nicotine replacement therapy (NRT).

Possible resources or solutions

- ✓ What could you do to help with these problems? (Assess willingness to use NRT.)

Developing a plan

- ✓ Would you be willing to develop a plan to stop smoking?

Yes

- * Provide written agreement with quit date.
- * Provide prescription for NRT if appropriate.
- * Review factors that may interfere with plan.
- * Schedule return visit/phone contact in one to two weeks.
- * Provide follow-up as indicated.

No

- * Would you be willing to cut down on your smoking?
- * If yes, make written agreement.
- * Provide self-help material.

Smoking as a risk behavior can be readily introduced into problem-based learning or other modes of presenting case models. While a "smoking case" is important for demonstrating an inter-

vention model, all medical cases should establish smoking status; the proportion of current smokers among these cases should then reflect actual prevalence (about 29% in Indiana). Smoking can also

be addressed in behavioral science teaching, where it provides a good model for introducing processes of addiction, socially-influenced health behavior, and the role of motivation in behavior change.

Smoking also provides a good model for brief patient-centered counseling for all preventive behavioral issues and for some milder psychiatric problems.

While various models exist,⁶ one successful approach, developed at the University of Massachusetts Medical School as part of an NHLBI Preventive Cardiology Academic Award (PCAA) program,⁸ starts by including smoking as part of a personal risk factor screening assessment upon entry to medical school. The class risk profile is then used as data in clinical correlation sessions in physiology, biochemistry and preventive medicine. First year students also take a Physician, Patient and Society course that includes medical interviewing, communication skills and clinical problem solving, using patient simulators, small groups and role-playing. This course explicitly addresses the role of physicians as educators and the medical interview as a vehicle for helping patients to alter disease-related behaviors. One session is devoted to practicing the patient-centered counseling model using smoking as the focus. In parallel to this segment, the effects of smoking on the lungs are introduced in their physiology course. The emphasis in the medical interviewing component is on the patient, using basic and time-efficient counseling skills to focus the interview, decrease defensiveness, increase motivation and provide information specific to the patient's needs. When counseling is presented as a style of interacting with the patient and as a skill that can be learned, the students are much more receptive to engaging in this approach.⁹ Because a brief (five to 10 minutes) model for counseling

is taught, this counteracts the perception that such counseling necessarily entails an extended length of time. *Table 1* shows the patient-centered counseling protocol that is taught, which addresses five areas (motivation, past experience with stopping, anticipated problems, possible solution, and making a plan). Second year medical students participate in an Epidemiology and Preventive Medicine course that further emphasizes the relationship of risk factors to disease prevention and biological factors as only one aspect of a complex biopsychosocial environment.

During the third- and fourth-year clerkships, a special emphasis is placed on utilizing the medical student to address behavioral risk factors during both inpatient and outpatient rotations. Preceptors model brief office and bedside counseling to address risk factors, thereby reinforcing a prevention-oriented medical culture. During the fourth year, students also may participate in electives in preventive and behavioral medicine, cardiac rehabilitation and preventive cardiology.

Postgraduate training – Because smoking intervention is not yet well integrated into usual clinical practice, residents and fellows may receive little systematic reinforcement or modeling to address this issue. Other barriers include an emphasis on technology and intense time pressures that often characterize residency programs. Addressing smoking also may be compartmentalized as relevant only to primary care or pulmonary medicine.

As in medical school, addressing tobacco risks and smoking intervention can be integrated into

other training components: attending rounds, morning report, outpatient chart review, grand rounds, journal clubs, M&M conferences. Since residents come from a range of backgrounds, providing specialized training at teaching conferences may be necessary.

The patient-centered counseling protocol, mentioned above, was first developed and shown to be effective at the University of Massachusetts Medical School as part of a randomized clinical trial.^{9,10} Primary care patients who were provided brief counseling and prescription of NRT by medical residents were about three times more likely to be abstinent six months later than were patients receiving only basic advice to quit smoking. With 10 years of experience to date, a highly successful structure for providing training to residents has been developed and integrated into the regular curriculum.

The basic components are structured to accommodate residents entering with a wide range of previous knowledge. Two one-hour teaching conferences are scheduled, which all incoming interns are required to attend, to teach the basic elements of patient-centered smoking intervention, as outlined above and in *Table 1*. Extra sessions accommodate all residents' schedules. Role-playing and videotaping of each resident are used. The residents then are provided with individual 20-minute tutorial sessions for feedback during their clinic time, with extra sessions as needed. This training has been widely accepted by residents; it provides specific guidelines for how to address smoking and increases confidence in doing so.

Furthermore, all faculty in general medicine and family medicine also have participated in the training, either with new groups of residents or in special training sessions. As more experience was gained, specific barriers were identified and systematically addressed, as outlined in *Table 2*.

A similar training program developed for pediatric residents at the University of North Carolina¹¹ was based on the NCI Smoking Cessation Guide (see Resource List). They found that those residents who engaged in role-playing exercises and were taught in a clinic setting gained more benefit than residents who attended only teaching conferences. However, ongoing reinforcement was not built into the training, and patients' reports of having received intervention increased only marginally.

Another successful model for dissemination of training to residents and current faculty involves providing intensive training to a few core faculty who teach this to fellow faculty and residents, and who serve as resources in developing an ongoing curriculum.¹²

For training purposes, commitment of the residency director, outpatient clinic directors and chief residents is important. As providing smoking intervention became an expected part of clinical care, faculty involvement at UMMS also increased, and providing the necessary teaching and precepting became a recognized and valued teaching responsibility for primary care and behavioral medicine faculty. Institutional involvement on the part of staff is also important to keep supplies of self-help materials available, as is support in approving forms that

facilitate tracking of patients and serve to prompt the practitioner to intervene. In the future, coordinating smoking intervention efforts among a team of professionals, initiated by the physician, but

including nurses or health educators, may provide the most effective treatment.³

Community physicians – Practicing physicians most often cite inadequate time, lack of compen-

Table 2

Overcoming training barriers

Barriers

No awareness or support for training program from directors.

Competing demands for faculty instructor's time.

Faculty instructor not confident in ability to carry out training.

No available extra time for training.

Low turnout at conferences.

Difficulty in finding time to assess students' and residents' skills.

Suggestions

Elicit support of curriculum, residency and clinic director/department chair and the chief resident.

Provide information and set up individual meetings.

Negotiate with department chair for this training as a part of teaching responsibilities.

Present benefits of training to the institution, department and residents.

Recommend how to incorporate training into existing curriculum.

Consult with colleagues in other programs with experience in risk-factor counseling.

Re-read materials and role-play with colleagues.

Elicit support of psychology staff to assist with training.

Use existing training conference time: morning report, residents' teaching conference, grand rounds, clinic chart review.

Offer food.

Page residents on day of program. Send reminders and reinforce benefits to residents.

Use precepting or clinic time, case review time or rounds.

sation and a general sense of ineffectiveness as reasons to not provide smoking intervention. Physicians may be smokers themselves or fear that they will lose patients if they address smoking. Although CME workshops on smoking intervention and extensive materials published by the National Institutes of Health are increasingly available, these approaches have not yet had much impact on physician behavior. The proportion of smokers who receive even basic intervention advice from physicians remains low, particularly among patients who do not yet have a smoking-related diagnosis. Even in family practice settings, most physicians consistently address smoking only if patients have obvious smoking-related disease. Providing intervention to hospitalized smokers is much less common. For example, a recent study in two Indiana hospitals documented very little use of NRT and almost no provision of counseling.

Providing systematic advanced training in smoking intervention to community physicians is more difficult than providing training within the medical school environment. Passive learning, which characterizes most continuing education venues such as conferences, seminars or physician education materials, is markedly ineffective in changing behavior, as documented in a recent review of CME strategies.¹³ Office-based training using "academic detailing," workshops that involve extensive role-playing and office follow-up, availability of patient education materials and reminders produce much more effective learning.

Physicians can also support efforts within their local practice community by linking with such voluntary health organizations as the American Cancer Society, American Lung Association or the American Heart Association; providing workshops themselves; lobbying for reimbursement or HMO coverage for providing intervention; and setting guidelines to change expectations for smoking intervention within inpatient settings. □

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Suggested resources

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In Patients Over 65

2.5 mg
Starting
Dose

Hypertension plus concomitant disorders?

First, do no harm.



PLENDIL—No significant adverse effect on many parameters of cardiac function:

- no effect on cardiac contractility* (no negative inotropic effect).
- no effect on cardiac conductivity.*
- no effect on cardiac output.*

PLENDIL – Few known drug interactions.[†]

PLENDIL – More than 1 billion patient days worldwide.¹

The most common unwanted effects are peripheral edema and headache.

24-hour control



Plendil[®]

(felodipine) Tablets, 2.5 mg,
5 mg, 10 mg

Selected as baseline therapy for
The HOT Study²—a landmark trial.

* In clinical trials in hypertensive patients without clinical evidence of left ventricular dysfunction, no symptoms suggestive of a negative inotropic effect were noted; however, none would be expected in this population. Although acute hemodynamic studies in a small number of patients with NYHA Class II or III heart failure treated with felodipine have not demonstrated negative inotropic effects, safety in patients with heart failure has not been established.

[†] See PRECAUTIONS section of full Prescribing Information.

Please see brief summary of Prescribing Information on the next page.

For hypertensive patients with concomitant disorders.

24-hour control



Plendil®

(felodipine) Tablets, 2.5 mg,
5 mg, 10 mg



Selected as baseline therapy for
The HOT Study²—a landmark trial.

BRIEF SUMMARY

PLENDIL® (FELODIPINE) EXTENDED-RELEASE TABLETS

Before prescribing, please consult full Prescribing Information.

CONTRAINDICATIONS: Hypersensitivity to this product.

PRECAUTIONS: General: Hypotension: May occasionally precipitate significant hypotension and rarely syncope. May lead to reflex tachycardia which in susceptible individuals may precipitate angina pectoris. (See ADVERSE REACTIONS.)

Heart Failure: Although acute hemodynamic studies in a small number of patients with NYHA Class II or III heart failure treated with felodipine have not demonstrated negative inotropic effects, safety in patients with heart failure has not been established. Caution therefore should be exercised when using PLENDIL* in patients with heart failure or compromised ventricular function, particularly in combination with a beta blocker.

Elderly Patients or Patients with Impaired Liver Function: Patients over 65 years of age or patients with impaired liver function may have elevated plasma concentrations of felodipine and may respond to lower doses of PLENDIL, therefore a starting dose of 2.5 mg once a day is recommended. These patients should have their blood pressure monitored closely during dosage adjustment of PLENDIL. (See CLINICAL PHARMACOLOGY and DOSAGE AND ADMINISTRATION sections of full Prescribing Information.)

Peripheral Edema: Peripheral edema, generally mild and not associated with generalized fluid retention, was the most common adverse event in the clinical trials. The incidence of peripheral edema was both dose- and age-dependent. Frequency of peripheral edema ranged from about 10 percent in patients under 50 years of age taking 5 mg daily to about 30 percent in those over 60 years of age taking 20 mg daily. This adverse effect generally occurs within 2-3 weeks of the initiation of treatment.

Information for Patients

Take PLENDIL tablets whole; do not crush or chew. Patients should be told that mild gingival hyperplasia (gum swelling) has been reported. Good dental hygiene decreases its incidence and severity.

Drug Interactions: Beta-Blocking Agents: A pharmacokinetic study of felodipine in conjunction with metoprolol demonstrated no significant effects on the pharmacokinetics of felodipine. The AUC and C_{max} of metoprolol, however, were increased approximately 31 and 38 percent, respectively. In controlled clinical trials, however, beta blockers including metoprolol were concurrently administered with felodipine and were well tolerated.

Cimetidine: In healthy subjects pharmacokinetic studies showed an approximately 50 percent increase in the area under the plasma concentration-time curve (AUC) as well as the C_{max} of felodipine when given concomitantly with cimetidine. It is anticipated that a clinically significant interaction may occur in some hypertensive patients. Therefore, it is recommended that low doses of PLENDIL be used when given concomitantly with cimetidine.

Digoxin: When given concomitantly with PLENDIL the pharmacokinetics of digoxin in patients with heart failure were not significantly altered.

Anticonvulsants: In a pharmacokinetic study, maximum plasma concentrations of felodipine were considerably lower in epileptic patients on long-term anticonvulsant therapy (e.g., phenytoin, carbamazepine, or phenobarbital) than in healthy volunteers. In such patients, the mean area under the felodipine plasma concentration-time curve was also reduced to approximately six percent of that observed in healthy volunteers. Since a clinically significant interaction may be anticipated, alternative antihypertensive therapy should be considered in these patients.

Other Concomitant Therapy: In healthy subjects there were no clinically significant interactions when felodipine was given concomitantly with indomethacin or spironolactone.

Interaction with Food: See CLINICAL PHARMACOLOGY, Pharmacokinetics and Metabolism section of full Prescribing Information.

Carcinogenesis, Mutagenesis, Impairment of Fertility
In a two-year carcinogenicity study in rats fed felodipine at doses of 7.7, 23.1 or 69.3 mg/kg/day (up to 28 times¹ the maximum recom-

mended human dose on a mg/m² basis), a dose-related increase in the incidence of benign interstitial cell tumors of the testes (Leydig cell tumors) was observed in treated male rats. These tumors were not observed in a similar study in mice at doses up to 138.6 mg/kg/day (28 times¹ the maximum recommended human dose on a mg/m² basis). Felodipine, at the doses employed in the two-year rat study, has been shown to lower testicular testosterone and to produce a corresponding increase in serum luteinizing hormone in rats. The Leydig cell tumor development is possibly secondary to these hormonal effects which have not been observed in man.

In this same rat study a dose-related increase in the incidence of focal squamous cell hyperplasia compared to control was observed in the esophageal groove of male and female rats in all dose groups. No other drug-related esophageal or gastric pathology was observed in the rats or with chronic administration in mice and dogs. The latter species, like man, has no anatomical structure comparable to the esophageal groove.

Felodipine was not carcinogenic when fed to mice at doses of up to 138.6 mg/kg/day (28 times¹ the maximum recommended human dose on a mg/m² basis) for periods of up to 80 weeks in males and 99 weeks in females.

Felodipine did not display any mutagenic activity *in vitro* in the Ames microbial mutagenicity test or in the mouse lymphoma forward mutation assay. No clastogenic potential was seen *in vivo* in the mouse micronucleus test at oral doses up to 2500 mg/kg (506 times¹ the maximum recommended human dose on a mg/m² basis) or *in vitro* in a human lymphocyte chromosome aberration assay.

A fertility study in which male and female rats were administered doses of 3.8, 9.6 or 26.9 mg/kg/day showed no significant effect of felodipine on reproductive performance.

Pregnancy: Pregnancy Category C

There are no adequate and well-controlled studies in pregnant women. If felodipine is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential hazard to the fetus, possible digital anomalies of the infant, and the potential effects of felodipine on labor and delivery, and on the mammary glands of pregnant females. (See FULL PRESCRIBING INFORMATION.)

Nursing Mothers

It is not known whether this drug is secreted in human milk and because of the potential for serious adverse reactions from felodipine in the infant, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use

Safety and effectiveness in children have not been established.

ADVERSE REACTIONS: In controlled studies in the United States and overseas approximately 3000 patients were treated with felodipine as either the extended-release or the immediate-release formulation.

The most common clinical adverse events reported with PLENDIL® (Felodipine) administered as monotherapy at the recommended dosage range of 2.5 mg to 10 mg once a day were peripheral edema and headache. Peripheral edema was generally mild, but it was age- and dose-related and resulted in discontinuation of therapy in about 3 percent of the enrolled patients. Discontinuation of therapy due to any clinical adverse event occurred in about 6 percent of the patients receiving PLENDIL, principally for peripheral edema, headache, or flushing.

Adverse events that occurred with an incidence of 1.5 percent or greater at any of the recommended doses of 2.5 mg to 10 mg once a day (PLENDIL, N=861; Placebo, N=334), without regard to causality, are compared to placebo and are listed by dose in the table below. These events are reported from controlled clinical trials with patients who were randomized to a fixed dose of PLENDIL or titrated from an initial dose of 2.5 mg or 5 mg once a day. A dose of 20 mg once a day has been evaluated in some clinical studies. Although the antihypertensive effect of PLENDIL is increased at 20 mg once a day, there is a disproportionate increase in adverse events, especially those associated with vasodilatory effects (see DOSAGE AND ADMINISTRATION).

Starting dose:

5 mg once a day.
2.5 mg once a day for patients over 65 or those with liver impairment.

Most commonly dispensed dose³:

5 mg once a day.

Recommended dosage range:

2.5 mg to 10 mg once a day.

PLENDIL should be swallowed whole and not crushed or chewed.

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2. Hansson L. The Hypertension Optimal Treatment Study (The HOT Study). *Blood Pressure*. 1993; 2:62-68.
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Percent of Patients with Adverse Events in Controlled Trials*
of PLENDIL (N=861) as Monotherapy without Regard to Causality
(Incidence of discontinuations shown in parentheses)

Body System	Placebo N=334	2.5 mg N=255	5 mg N=581	10 mg N=408
<i>Body as a Whole</i>				
Peripheral Edema	3.3 (0.0)	2.0 (0.0)	8.8 (2.2)	17.4 (2.5)
Asthenia	3.3 (0.0)	3.9 (0.0)	3.3 (0.0)	2.2 (0.0)
Warm Sensation	0.0 (0.0)	0.0 (0.0)	0.9 (0.2)	1.5 (0.0)
<i>Cardiovascular</i>				
Palpitation	2.4 (0.0)	0.4 (0.0)	1.4 (0.3)	2.5 (0.5)
<i>Digestive</i>				
Nausea	1.5 (0.9)	1.2 (0.0)	1.7 (0.3)	1.0 (0.7)
Dyspepsia	1.2 (0.0)	3.9 (0.0)	0.7 (0.0)	0.5 (0.0)
Constipation	0.9 (0.0)	1.2 (0.0)	0.3 (0.0)	1.5 (0.2)
<i>Nervous</i>				
Headache	10.2 (0.9)	10.6 (0.4)	11.0 (1.7)	14.7 (2.0)
Dizziness	2.7 (0.3)	2.7 (0.0)	3.6 (0.5)	3.7 (0.5)
Paresthesia	1.5 (0.3)	1.6 (0.0)	1.2 (0.0)	1.2 (0.2)
<i>Respiratory</i>				
<i>Upper Respiratory</i>				
Infection	1.8 (0.0)	3.9 (0.0)	1.9 (0.0)	0.7 (0.0)
Cough	0.3 (0.0)	0.8 (0.0)	1.2 (0.0)	1.7 (0.0)
Rhinorrhea	0.0 (0.0)	1.6 (0.0)	0.2 (0.0)	0.2 (0.0)
Sneezing	0.0 (0.0)	1.6 (0.0)	0.0 (0.0)	0.0 (0.0)
<i>Skin</i>				
Rash	0.9 (0.0)	2.0 (0.0)	0.2 (0.0)	0.2 (0.0)
Flushing	0.9 (0.3)	3.9 (0.0)	5.3 (0.7)	6.9 (1.2)

*Patients in titration studies may have been exposed to more than one dose level of PLENDIL® (Felodipine).

Adverse events that occurred in 0.5 up to 1.5 percent of patients who received PLENDIL in all controlled clinical trials at the recommended dosage range of 2.5 mg to 10 mg once a day and serious adverse events that occurred at a lower rate or events reported during marketing experience (those lower rate events are in italics) are listed below. These events are listed in order of decreasing severity within each category and the relationship of these events to administration of PLENDIL is uncertain: *Body as a Whole:* Chest pain, facial edema, flu-like illness; *Cardiovascular:* Myocardial infarction, hypotension, syncope, angina pectoris, arrhythmia, tachycardia, premature beats; *Digestive:* Abdominal pain, diarrhea, vomiting, dry mouth, flatulence, acid regurgitation; *Hematologic:* Anemia; *Metabolic:* ALT (SGPT) increased; *Musculoskeletal:* Arthralgia, back pain, leg pain, foot pain, muscle cramps, myalgia, arm pain, knee pain, hip pain; *Nervous/Psychiatric:* Insomnia, depression, anxiety disorders, irritability, nervousness, somnolence, decreased libido; *Respiratory:* Dyspnea, pharyngitis, bronchitis, influenza, sinusitis, epistaxis, respiratory infection; *Skin:* Contusion, erythema, urticaria; *Special Senses:* Visual disturbances; *Urogenital:* Impotence, urinary frequency, urinary urgency, dysuria, polyuria.

Gingival Hyperplasia: Gingival hyperplasia, usually mild, occurred in <0.5 percent of patients in controlled studies. This condition may be avoided or may regress with improved dental hygiene. (See PRECAUTIONS, Information for Patients section.)

Clinical Laboratory Test Findings

Serum Electrolytes: No significant effects on serum electrolytes were observed during short- and long-term therapy. (See CLINICAL PHARMACOLOGY, Renal/Endocrine Effects section of full Prescribing Information.)

Serum Glucose: No significant effects on fasting serum glucose were observed in patients treated with PLENDIL in the U.S. controlled study.

Liver Enzymes: One of two episodes of elevated serum transaminases decreased once drug was discontinued in clinical studies; no follow-up was available for the other patient.



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Tobacco free at the Indianapolis 500

Eric D. Blom, Ph.D.
Indianapolis

Most of us are influenced during our lifetime by the behavior of others, particularly people we look up to. These role model effects can be both positive and negative. The author vividly remembers the impact that 1950s movie star James Dean had on him during his impressionable youth. His red nylon jacket in "Rebel Without a Cause," and unfortunately the cigarette, temporarily became an absolute must. In the 1990s, the next generation of smokers is probably influenced in much the same way every time another Indiana idol, rock star John Mellencamp, is seen in an MTV video with a cigarette dangling from his lips.

Motorsports also produces idols and heroes that young people look up to. Many of these drivers competed in the 1992 75th running of the Indianapolis 500, which was a particularly historic race. Millions of spectators around the world witnessed the closest finish ever, with Al Unser Jr. beating Scott Goodyear by .043 second. Those same race fans saw the first ever tobacco counter-promotion-sponsored race car competing at the Indianapolis Motor Speedway. Driven by Indy car veteran Dominic Dobson, the car finished 12th (Figure 1), ahead of the multi-million-dollar-sponsored Marlboro cars of Rick Mears and Emerson Fittipaldi.

The Indianapolis 500 is promoted as the single largest sporting event in the world. More

Abstract

Most children are highly impressionable and easily influenced, particularly by people they admire. Role models in sports and entertainment who publicly use or commercially promote tobacco products potentially influence children to do the same. Motorsports events are saturated with tobacco sponsorship. We describe the counter-promotion of tobacco at the famed Indianapolis 500 and suggest other venues to continue this "Tobacco Free America" theme. □

than 400,000 race fans attend, and millions of others watch around the globe. The winner becomes an instant motorsports celebrity, and the high visibility of this event makes it a premiere race for the promotion of commercial products, including cigarettes and smokeless tobacco.

Tobacco sponsorship of televised motorsports circumvents federal law prohibiting the advertisement of tobacco products on television in the United States. The brand names and logos appear on race cars, driver uniforms and helmets and on signs strategically positioned in frequent view of spectators and television cameras. In an effort to counter this, the "Tobacco Free America" motorsports promotion was conceived and sponsored by the Head & Neck Cancer Rehabilitation Institute, an Indianapolis-based nonprofit public foundation; Methodist Hospital of Indiana; and the national physicians group, Physicians Ought to Care. This tobacco counter-promotion was endorsed by the national board of directors of the American Medical Association, American Cancer Society, American Lung Associa-

tion, American Heart Association and the American Academy of Otolaryngology-Head and Neck Surgery. With the exception of a feature article in the *American Medical News*,¹ this first-time effort unfortunately received minimal media coverage despite national press releases by the endorsing institutions. Probably the most enduring anti-tobacco message was established through the free full-size poster of the "Tobacco Free America" Indy car distributed to 125,000 Indianapolis school children.

In 1993, the program was expanded with the "Tobacco Free America" message appearing on the Indy car of veteran driver Scott Pruett in nationally televised races at Portland, Ore.; Long Beach, Calif.; and Indianapolis. Pruett spoke to enthusiastic audiences at local schools, and his remarks were well-covered by the media. A down-to-earth Pruett, casually dressed in blue jeans, described his experiences in Indy car racing and then very effectively expressed his message that "smoking is not the cool thing to do. I have gotten to where I am in racing without smoking, without caving in to peer

pressure and without looking up to people who are smoking."²

In 1994 and 1995, the "Tobacco Free America" motorsports message was continued literally on the backs of three young go-cart racers competing throughout the summer in the nationally televised "Saturday Night Lightning" series on ESPN 2 (Figure 2). The announcers frequently mentioned the "tobacco free" or "smoke free" cars in reporting the race action. Both years, one of the team drivers finished the season in the top five overall in class among more than 20 entrants. ESPN 2 race coverage was available for viewing in approximately 20 million homes in the United States.

Children and adolescents actively follow motorsports, and famous drivers undoubtedly become their idols and role models, not unlike other sports figures, rock stars and movie actors. At race tracks, they flock to get an autograph from Indy car drivers like Al Unser Jr., who was adorned with Marlboro logos in 1995, presumably by sponsor contract. Research has shown that brand name advertising can eventually influence the consumer choices of children in their lifetime³⁻⁵ despite that not being the stated objective of the tobacco industry.⁶

The "Tobacco Free America" program can and should be replicated in communities throughout Indiana and the United States. It can be applied to Little League baseball, football and soccer or almost any sport that kids participate in either as a team or as an individual. "Tobacco Free America" and the corresponding logo "The Real Winner's Circle," consisting of a circle with crossbar



Figure 1: 1993 Indianapolis 500 qualification photograph of veteran driver Dominic Dobson in the "Tobacco Free America" Indy car. (Courtesy of the Indianapolis Motor Speedway Corporation).

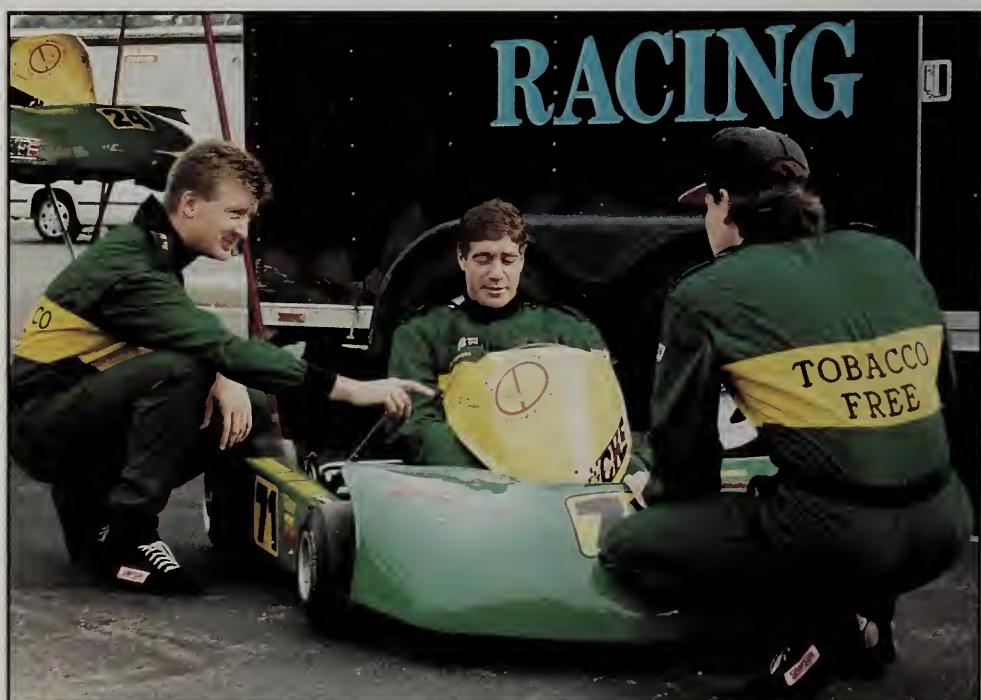


Figure 2: "Tobacco Free America" team go-cart drivers (left to right) Brian Schuman, Boyd Gumpert and Geoff Bushor.

over a cigarette and container of smokeless tobacco, are available logos for use by the general public without any fee (Figure 2). A centrally coordinated but local physician-initiated network of "Tobacco Free America" children's sporting events sprouting up throughout Indiana in the spring of 1996 has tremendous media potential. It would simultaneously convey a highly visible anti-tobacco message as our kids compete and join "The Real Winner's Circle."

Our tobacco counter-promotion in motorsports during the past five years, accomplished with a budget that was microscopic in comparison to the multi-million dollar promotions of the tobacco

industry, capitalized on having young, active, successful role models provide a message to kids that smoking and chewing tobacco are not cool and that tobacco consumption can have substantial health consequences. If this program influenced only one kid not to use tobacco in his lifetime, then all the money and effort expended thus far will have been worth it. □

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5. Gorn GJ, Florsheim R: The effect of commercials for adult products on children. *J Consumer Res*, 11:962-967, 1985.
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Objectives for CME activity

Upon completion of this journal, the reader should be able to:

- outline the effects of tobacco on the health of Indiana citizens;
- describe the National Cancer Institute's "5A" smoking cessation program;
- describe the impact of the Indiana Prenatal Substance Use Prevention Program in smoking cessation among high-risk pregnant women;
- explain the involvement of the AMA in the control of tobacco;
- discuss the ethical responsibilities of physicians in the control of tobacco;
- delineate the curriculum pertaining to tobacco for medical school, residencies and continuing medical education;
- outline current tobacco legislation in Indiana;
- explain the relevance of the Indiana Project ASSIST;
- outline the unique objectives of tobacco education among individuals of low literacy in the state;
- outline the HCE (Health Care Excel) smoking cessation inpatient guideline initiative;
- give examples of several major tobacco interventions in the workplace;
- outline the treatment for nicotine replacement for hard-core smokers; and
- recognize practical diagnosis and treatment of smokeless tobacco users.

CME questions

Give the best answer(s) to each of the questions below.

- 1. Which of the following statement(s) regarding smokeless tobacco is/are true?**
 - a. Smokeless tobacco is a safe substitute for cigarette smoking.
 - b. Most users of smokeless tobacco start in their 20s and 30s.
 - c. Smokeless tobacco is less addicting than cigarette smoking.
 - d. Nationwide approximately 10% of children in the seventh, eighth and ninth grades are using smokeless tobacco.
 - e. All of the above.
 - f. None of the above.

- 2. Regarding nicotine replacement therapy (NRT), which of the following statements are false?**
 - a. NRT has been proven to be effective.
 - b. Approximately 75% of nicotine dependent smokers who are treated with NRT will be abstinent at a two-year follow-up.
 - c. Cotinine is the biologic measure of choice for monitoring nicotine replacement therapy.
 - d. NRT should be used only in the context of an overall office-based program for smoking cessation.
 - e. All of the above.
 - f. None of the above.

- 3. Which of the following are components of a successful office-based smoking cessation program?**
 - a. A smoke-free office environment.
 - b. A system for identifying all smokers and tracking their progress in smoking cessation.
 - c. A brief physician counseling of all smokers to quit.
 - d. A system for follow-up support of persons who quit.
 - e. All of the above.
 - f. None of the above.

- 4. A 25-year-old, two-packs-per-day cigarette smoker is seen in the office for an ankle sprain. His history and physical examination are unremarkable except for the mild sprain for which you recommend treatment. You ask the patient if he has ever tried to quit smoking and advise him to do so. The patient is defensive and doesn't want to discuss quitting. Your plan of action at this point might include which of the following: (select one or more)**
 - a. Confront the patient regarding his failure to understand the importance of quitting.

- b. Ask the patient if he would take some written material regarding the health effects of tobacco and the importance of quitting.**
- c. Make a note in the chart to raise the issue of quitting at the patient's next visit.**
- d. Drop the issue and discharge the patient.**

- 5. The patient returns in six months for a pre-employment medical evaluation. You ask him about his smoking. He indicates that he has thought about quitting but is not sure he can. At this point you would do which of the following?**
 - a. Encourage him to quit and schedule an appointment in three months for follow-up.
 - b. Prescribe nicotine gum and follow up in two months.
 - c. Prescribe nicotine patch and follow up in two months.
 - d. Counsel the patient regarding his commitment to quit. Assess his level of dependency. Discuss the process of quitting and provide information regarding self-help quitting. Schedule a follow-up visit in one month.

- 6. The most appropriate candidates for using nicotine-containing transdermal patches or nicotine gum are those who:**
 - a. Have a high motivation to quit.
 - b. Began smoking in early adolescence or childhood.
 - c. Increase smoking levels to reduce negative moods.
 - d. Are moderate to heavy cigarette users (25+ per day).
 - e. All of the above.
 - f. None of the above.

- 7. Which of the following statements are correct:**
 - a. Smoking accounts for about 19% of all deaths in the United States.
 - b. Patients in the "preparation" stage of readiness to quit are twice as likely to stop smoking as those who are in the "contemplation" stage.
 - c. Including smoking status as part of your patient's vital signs list will increase the likelihood that you will advise the patient regarding smoking cessation.
 - d. When using the standard 21 or 22 mg per day nicotine patch dose, most smokers will achieve about 90% of their baseline (while still smoking) nicotine replacement dose.
 - e. For those smoking 40 or more cigarettes per day, a nicotine patch dose of 44 mg per day should be considered.

8. Case study:

John Wright is a 37-year-old owner of a Rapid Copy Center. He has smoked three packs of Marlboros a day for the past 10 years. His wife also smokes but at a lower level. He has two children. This is a follow-up visit for treating his acute bronchitis. He had a fever and productive cough three weeks ago, which has largely been resolved with the use of erythromycin. He has a chronic, non-productive morning cough and a history of developing bronchitis twice in the past two years. His BP is 132/85 and his lungs have occasional rales. All other findings are unremarkable. He has made six, half-hearted attempts to stop smoking, but never quit smoking for more than 12 hours, due to irritability, nervousness and anxiety. Of the options listed below, select six of the best that would give John a chance at quitting.

- a. Tell him to quit by tapering off cigarettes over six weeks.
- b. Have him set a quit date within the next two to three weeks.
- c. Unless his wife agrees to quit, don't even bother trying.
- d. Have him stop immediately by quitting "cold turkey."
- e. Use "scare" techniques in order to get his attention.
- f. Before using patches/gum, attempt to get him down to a pack of cigarettes a day (pretreatment reduction).
- g. Start him off on the 7 mg/day nicotine patch to make sure he is not allergic to the patch.
- h. If he selects nicotine gum, start him on the 4 mg dose.
- i. Send him to someone else who knows what they are doing.
- j. Follow up on the patient's quit-smoking progress.
- k. Give up. This guy is so "hard core" that he cannot quit.
- l. Make sure there is a behavioral component and psychological support during the quitting process.
- m. "Chew him out" for continuing to smoke.
- n. Urge patients who relapse to try again.

Answers:	
1. d	5. d
2. b	6. all of above
3. all of above	7. a, b, c and e
4. b and c	8. b, f, h, j, l and n

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Evaluation

Your responses to these questions help us to enhance our CME offerings. Please take the time to respond and return the evaluation. Thank you.

Please use the following codes to answer items 1 through 7.

SA = strongly agree

A = agree

U = undecided

D = disagree

SD = strongly disagree

1. The objectives of the CME activity were clearly stated.

SA A U D SD

2. The content of the journal articles was up-to-date.

SA A U D SD

3. The journal articles illustrated independence, objectivity, balance and scientific rigor.

SA A U D SD

4. The content was closely related to objectives of my clinical practice and/or teaching.

SA A U D SD

5. The journal articles increased my knowledge of the subject.

SA A U D SD

6. The content of the journal articles met my personal expectation and needs.

SA A U D SD

7. I will apply the information learned from these articles in my clinical practice.

SA A U D SD

Do you have any suggestions as to how to improve the content of the journal articles?

What topics would you like to see in future journal articles?

Thank you for completing this evaluation and survey.

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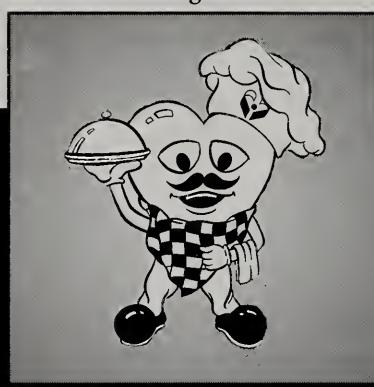
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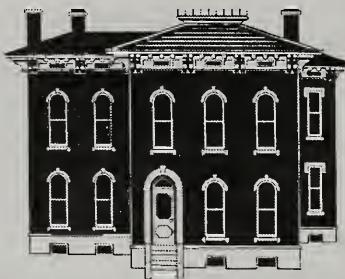
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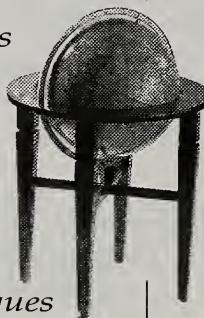
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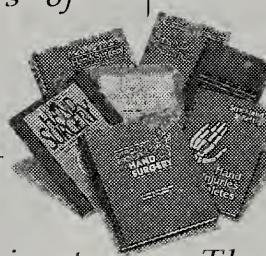
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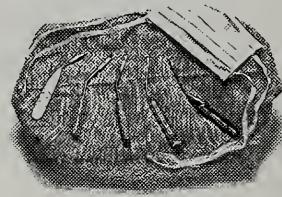
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■ alliance report

Cheryl Haslitt
ISMA Alliance Membership
Development Chair

In these stressful times of government regulation and changes, threats of litigation and advances in technology, the ISMA Alliance (ISMA-A) is a support group for the medical family and an advocate for the medical profession in the legislative arena. The Alliance raises funds for medical education and works for quality health care for all citizens. Now, more than ever, it is important for physician spouses to become members.

All levels of involvement are important. Active membership means attending meetings, implementing community programs and assuming leadership roles. Spouses with limited time may choose occasional participation in short-term community projects. There are those who choose to support the organization simply by paying dues, enabling the alliance to continue legislative activities, support for medical education, health promotions and educational seminars and leadership training. Spouses who live in counties having no organized alliance may choose to become members-at-large. Any spouse of an ISMA member is eligible. Each and every member and level of

participation is welcomed and needed.

Even though membership in the ISMA Alliance has been decreasing for the past several years, 10 of 24 organized counties had membership increases for the year ending March 31, 1995. Four of these counties having the largest increases were presented with \$50 awards at the annual convention last October. These counties were:

- Monroe-Owen County for the greatest numerical ISMA-A increase (33 members);
- Bartholomew-Brown County for the greatest percentage ISMA-A increase (25%);
- Fort Wayne for the greatest numerical AMA-A increase (37 members); and
- Wells County for the greatest percentage AMA-A increase (87%).

The ISMA Alliance is working to stabilize or increase membership. Currently, dues billing for counties is offered free-of-charge as a service of membership. A letter was recently sent to recruit prospective members-at-large in four counties having no organized alliances. Spouses of residents and interns have been offered free dues for the year. In leadership workshops last spring, county leaders learned about membership recruiting and retention tools developed by the AMA Alliance.

County presidents-elect are encouraged to attend the AMA Alliance Confluence, a leadership training session held in Chicago. ISMA staff is assisting the alliance by providing information, support services, advice and advertising.

An investment in ISMA Alliance will pay dividends now and in the future for physician spouses and for medicine. The Alliance also offers:

- support and understanding of other medical spouses who share the unique challenges of medical marriage;
- the opportunity to be involved in the legislative arena, impacting health care issues;
- leadership training, seminars on personal and professional development, enhanced communication skills, networking and opportunities for career development;
- the opportunity to support the education of tomorrow's physicians; and
- the opportunity to support local health programs, projects and education.

For more information about the ISMA Alliance, call Rosanna Iler at the ISMA, 1-800-257-4762 or (317) 261-2060, or Cheryl Haslitt, membership development chair, at (317) 282-9944. □

■ cme calendar

IU Child Care Conference

Indiana University will present the 31st Annual Indiana Multidisciplinary Child Care Conference May 22 and 23 at the Radisson Hotel City Centre Indianapolis.

The conference will address pediatric infectious disease, pediatric diabetology, pediatric rheumatology, pediatric ophthalmology and neonatal resuscitation.

For registration information, write Richard Schreiner, M.D., attn: Mary Ann Underwood, IU School of Medicine, Riley Hospital for Children, Rm 5900, 702 Barnhill Dr., Indianapolis, IN 46202-5225.

Nasser, Smith & Pinkerton

Nasser, Smith & Pinkerton Cardiology Inc. of Indianapolis will present the following CME programs:

May 10 - Progress in Cardiology IX, Westin Hotel, Indianapolis.
Aug. 23 - NSP International Symposium, Westin Hotel, Indianapolis.
Sept. 25 - Income vs. Outcome, Ritz Charles, Carmel, Ind.
Oct. 4 - Richter Day, Westin Hotel, Indianapolis.

For additional information, call Andrea Speer at (317) 338-6682.

St. Vincent Hospitals

St. Vincent Hospital and Health Services in Indianapolis will present these CME courses:

Mar. 26 - Indiana Dermatopathology Conference - Local, St. Vincent Hospital, Cooling Auditorium, Indianapolis.

Apr. 27-28 - 14th Annual Spring Seminar in Dermatopathology - "Compare Your Diagnoses with Bernie's," St. Vincent Hospital, Cooling Auditorium, Indianapolis.

May 10 - Progress in Cardiology IX, Westin Hotel, Indianapolis.

May 17 - Prenatal Diagnosis, location to be announced.

Oct. 4 - Second Annual Controversies in Ultrasound, location to be announced.

For more information, call Beth Hartauer, (317) 338-3460.

Indiana University

The Indiana University School of Medicine will present the following CME courses:

Apr. 13-14 - Dermatopathology.

Apr. 29 - 20th Annual del Regato Lecture.

May 10 - Hemostasis in Cardiothoracic Surgery.

May 17 - New Horizons in Medicine.

June 6-7 - ASCO.

All courses will be presented at the University Place Conference Center and Hotel in Indianapolis. For more information, call (317) 274-8353.

University of Wisconsin

The University of Wisconsin - Madison Medical School will present these CME courses:

Mar. 29-30 - University of Wisconsin CT Symposium - 10th Anniversary Meeting, Edgewater Hotel,

Madison, Wis.

May 2-4 - Electrophysiologic Basis for the Diagnosis and Management of Cardiac Arrhythmias, Hyatt Regency Hotel, Milwaukee, Wis.

May 9-11 - 19th Annual Sports Medicine Symposium, Concourse Hotel, Madison, Wis.

May 14-15 - The Heart of Cardiology is (Still) Echocardiography, Hyatt Regency Hotel, Milwaukee, Wis.

For more information, call Sarah Aslakson, (608) 263-2856.

University of Michigan

The University of Michigan Medical School will sponsor these CME courses:

Mar. 22 - Applied Clinical Informatics Symposium: Topics on Information Systems of Immediate Importance for the Practicing Clinician.

Mar. 28-29 - Challenges and Changes in Obstetrics and Gynecology.

Mar. 30 - Transvaginal Ultrasound Workshop.

Apr. 12-13 - Endoscopic Sinus Surgery.

Apr. 19-20 - The Phlebotomy Team: Technical and Management Perspectives.

Apr. 22-24 - Ultrasound in Obstetrics and Gynecology.

All courses will be held at the Towsley Center in Ann Arbor, Mich. To register, call (313) 763-1400 or 1-800-962-3555. □

■ obituaries

LeRoy R. Aders, M.D.

Dr. Aders, 43, a Kokomo emergency physician, died Nov. 30, 1995, in a plane crash near McClure, Ohio.

He was a 1980 graduate of the Indiana University School of Medicine.

Dr. Aders, who had moved to Kokomo in 1984, was medical director of emergency services at Howard Community Hospital. He was a member of the American College of Emergency Physicians.

Edilberto D. Angulo, M.D.

Dr. Angulo, 68, a pediatrician and allergist from Schererville, died Nov. 3, 1995, at his home.

He was a 1952 graduate of the Boston University School of Medicine and a U.S. Army veteran of the Korean War.

Dr. Angulo practiced in Lansing, Ill., before affiliating with the Jones Clinic in Munster. He later had a solo practice in Dyer. He was affiliated with the Community Hospital in Munster and St. Margaret Hospital in Hammond and served as utilization management physician adviser at both hospitals. He was chief of the pediatrics department at St. Margaret Hospital from 1973 to 1976. Dr. Angulo was a member of the American Academy of Pediatrics and the American College of Allergy and Immunology.

Lowell F. Beggs, M.D.

Dr. Beggs, 84, a retired Columbus general surgeon, died Jan. 11, 1996, at Columbus Regional Hospital.

He was a 1935 graduate of the Indiana University School of Medicine.

Dr. Beggs practiced surgery in Columbus for 43 years, retiring in 1983. He previously was a surgical

anatomy teacher at Northwestern University School of Medicine. He was a fellow of the American College of Surgeons and the United States Section of the International College of Surgeons.

Charles H. Caylor, M.D.

Dr. Caylor, 70, a Bluffton urological surgeon, died Nov. 18, 1995.

He was a 1953 graduate of the Loyola University Stritch School of Medicine.

Dr. Caylor was chairman of the Caylor-Nickel Medical Center in Bluffton and the third generation to serve the clinic, founded by his grandfather. He also was chairman of the board of the Caylor-Nickel Research Institute, Account Specialists, Inc., and the Alzheimer's Disease Foundation. Dr. Caylor was a member of the National Association for Hospital Development and a board member of the Old-First National Bank board of directors.

Leon H. Chandler, M.D.

Dr. Chandler, 87, a retired Goshen surgeon, died Dec. 12, 1995, at his home in Florida.

He was a 1938 graduate of the Indiana University School of Medicine.

Dr. Chandler had served as chairman of the surgery department at Goshen General Hospital, which dedicated the surgery wing to him in 1980. He began his medical career in Millersburg and had been chief surgeon at LaGrange County Hospital.

George L. Compton, M.D.

Dr. Compton, 80, a retired Tipton family practice physician, died Nov. 15, 1995, at Riverview Hospital in Noblesville.

He was a 1942 graduate of the

Indiana University School of Medicine and an Army Medical Corps veteran of World War II.

Dr. Compton was one of the founding physicians of Tipton County Memorial Hospital. He was a member of the Knights of Columbus and the American Legion.

Preston M. Dunning, M.D.

Dr. Dunning, 76, an occupational medicine specialist from Highland, died Nov. 18, 1995, at The Community Hospital in Munster.

He was a 1943 graduate of the Temple University School of Medicine.

Dr. Dunning joined Inland Steel Co. in 1966 and retired as corporate medical director in 1984. He was a member of the American College of Occupational Medicine, the American Public Health Association, the American College of Preventive Medicine and the original divisional board at Our Lady of Mercy Hospital in Dyer. He also served on the Calumet Area Foundation for Medical Care Coordinated Care Committee and the advisory council of the Indiana University Northwest Center for Medical Education.

Max M. Earl, M.D.

Dr. Earl, 77, a Kokomo internist, died Dec. 15, 1995, at St. Joseph Hospital & Health Center in Kokomo.

He was a 1942 graduate of the Indiana University School of Medicine and an Army veteran of World War II.

Dr. Earl, who had practiced in Kokomo since 1950, was on the staffs of St. Joseph Hospital & Health Center and Howard Community Hospital. In 1952, he was the first physician in Kokomo to be designated a fellow of the

■ obituaries

American College of Cardiology. He became known as an expert in treating heart disease.

Ralph V. Ganser, M.D.

Dr. Ganser, a retired South Bend otolaryngologist, died Nov. 13, 1995, in Clearwater, Fla. He had lived in Florida since retiring in 1987.

He was a 1952 graduate of the Pritzker School of Medicine at the University of Chicago and an Army veteran of World War II.

Dr. Ganser began his practice in South Bend in 1956 and headed the North Central Hearing Clinic from 1963 to 1976. He received the 1968 Award of Merit from the Hearing and Speech Center of St. Joseph County. He was a fellow of the American College of Surgeons.

Melvin D. Gardner, M.D.

Dr. Gardner, 90, a retired abdominal surgeon, died Jan. 10, 1996, at his home in Michigan City.

He was a 1929 graduate of the University of Iowa College of Medicine.

Dr. Gardner retired in 1986.

William H. Getty, M.D.

Dr. Getty, 75, a retired Evansville internist, died Dec. 18, 1995, at St. Vincent Hospital in Indianapolis.

He was a 1945 graduate of the University of Michigan Medical School.

Dr. Getty was affiliated with Welborn Clinic for 33 years and was a past president of the Vanderburgh County Medical Society.

Marion W. Hillman, M.D.

Dr. Hillman, 93, former St. Joseph County coroner, died Dec. 10, 1995, at Venice (Fla.) Hospital.

He was a 1928 graduate of the University of Michigan Medical

School and an Army Air Corps Medical Corps veteran of World War II.

Dr. Hillman was a family practice physician in South Bend from 1928 to 1963 and served as coroner from 1948 to 1950. He retired in 1966 after serving two years as medical director of Beatty Memorial Hospital in Westville. He had been president of the St. Joseph County Medical Society.

William M. Huse, M.D.

Dr. Huse, 76, a retired Indianapolis obstetrician/gynecologist, died Jan. 3, 1996.

He was a 1943 graduate of the Indiana University School of Medicine and an Army veteran of World War II.

Dr. Huse practiced obstetrics and gynecology for 30 years, retiring in 1983. He had served on the medical staffs of Methodist and St. Vincent hospitals. At Methodist Hospital, he was chairman of the ob/gyn department and a member of the teaching staff. He was a fellow of the American College of Obstetricians and Gynecologists.

James A. McClintock, M.D.

Dr. McClintock, 78, a retired surgeon, died Dec. 20, 1995, at Harrison County Hospital. He was living in Corydon at the time of his death.

He was a 1942 graduate of the Pritzker School of Medicine at the University of Chicago and an Army veteran of World War II.

Dr. McClintock, who set up his practice in Muncie in 1949, practiced general and plastic surgery at Ball Memorial Hospital and was a teaching instructor in the Ball Memorial Nursing program. He also practiced in Hartford City and Corydon. He was a member of the American College of Surgeons.

James Y. McCullough, M.D.

Dr. McCullough, 86, a retired New Albany surgeon, died Dec. 20, 1995, at his home.

He was a 1934 graduate of the University of Pennsylvania School of Medicine.

Dr. McCullough was a member of the faculty of the department of surgery at the University of Louisville and a staff member emeritus at Floyd Memorial Hospital and Health Services.

Philip R. Myers, M.D.

Dr. Myers, 65, a retired South Bend emergency physician, died Jan. 4, 1996, at Memorial Hospital in South Bend.

He was a 1959 graduate of the Indiana University School of Medicine and a Navy veteran of the Korean War.

Dr. Myers retired in 1995 as an emergency department physician at Memorial Hospital. He was president and founder of South Bend Emergency Physicians, former member of the Memorial Hospital Board of Directors, former president of the Memorial Hospital medical staff and founder and former medical director of South Bend Area Paramedics. He was a charter member, charter diplomate, life fellow, past president and member of the board of directors of the American College of Emergency Physicians.

Warren R. Rucker, M.D.

Dr. Rucker, 65, an internist and former mayor of Madison, died Dec. 11, 1995, at King's Daughters' Hospital in Madison.

He was a 1957 graduate of the University of Louisville School of Medicine.

Dr. Rucker had been a staff physician at Madison State Hospital and in private practice. He had

■ obituaries

served as Jefferson County health officer, president of the King's Daughters' Hospital medical staff and president of the Jefferson-Switzerland County Medical Society. Dr. Rucker was mayor from 1976 through 1983 and a city councilman from 1967 through 1975. He also was Jefferson County

Democratic chairman from 1972 to 1978.

James A. Taylor, M.D.

Dr. Taylor, 75, a retired occupational medicine specialist from Anderson, died Dec. 4, 1995.

He was a 1946 graduate of the St. Louis University School of

Medicine.

Dr. Taylor had served as medical director of Delco Battery, Muncie, for 10 years and as medical director of Delco Remy Division, GMC, Anderson for 22 years. He retired in 1986. □

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6 – Ray A. Haas, Greenfield (1997)

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7 – John M. Records, Franklin (1996)

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9 – Gerald Wehr, Lafayette (1997)

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11 – Regino Urgena, Marion (1996)

12 – Joseph R. Manthei, Bluffton (1997)

13 – Richard Houck, Michigan City (1998)

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(Terms end in October)

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3 – Kevin Burke, Jeffersonville (1998)

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- 7 – Craig Moorman, Franklin (1997)
- 7 – Girdhar Ahuja, Indianapolis (1996)
- 8 – Susan K. Pyle, Union City (1997)
- 9 – Michael Stewart, Crawfordsville (1998)
- 10 – John L. Swarner, Valparaiso (1997)
- 11 – William Mohr, Kokomo (1998)
- 12 – Scott Wagner, Fort Wayne (1998)
- 13 – David Hornback, South Bend (1997)
- RMS – Dung Nguyen, Indianapolis (1996)
- MSS – Erin Baker, Indianapolis (1996)

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- C. Dyke Egnatz, Schererville (1997)
- Michael O. Mellinger, LaGrange (1997)
- John A. Knotek, Lafayette (1996)
- Shirley Khalouf, Marion (1996)
- William Beeson, Indianapolis (1996)
- George Rawls, Indianapolis (1996)

AMA ALTERNATE DELEGATES (Terms end Dec. 31)

- Barney Maynard, Evansville (1997)
- Paula Hall, Indianapolis (1997)
- William Cooper, Columbus (1997)
- Max N. Hoffman, Covington (1996)
- Alfred Cox, South Bend (1996)
- Jerome Melchior, Vincennes (1996)

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Annual Meeting: May 9, 1996
- 3 - Pres: Robert Arnold, Salem
Secy: Kalen Carty-Kemker, Salem
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- 4 - Pres: Leon Michl, Madison
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- 5 - Pres: Ranganath Vedala, Brazil
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Annual Meeting: May 30, 1996
- 6 - Pres: Ray Haas, Greenfield
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- 7 - Pres: Russell Judd, Indianapolis
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- 9 - Pres: Michael Stewart, Crawfordsville
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- 10 - Pres: Frank Hieber, Munster
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- 11 - Pres: William Mohr, Kokomo
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Annual Meeting: Sept. 11, 1996
- 12 - Pres: David Haines, Warsaw
Secy: Robert Dykstra, Fort Wayne
Annual Meeting: Sept. 10, 1996
- 13 - Pres: Mohammad Arab, LaPorte
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Annual Meeting: March 20, 1996

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CLINICAL DIRECTOR, Community Health Clinic. BC primary care physician, MBA MPH degreed, to serve as clinical director. Responsibilities are 60% clinical and 40% administrative to start, with gradual transition into strictly administrative position. Will develop, coordinate and supervise clinical care programs ensuring compliance with guidelines, schedule provider personnel, implement and maintain quality improvement programs, represent provider staff to the community board. A new 2.2M facility to be completed in 1997, funding in place, will more than triple the space of the current building. You won't be alone; there is considerable support from the local medical community. Safe and family oriented, with great schools, Lafayette is a cosmopolitan city complemented by Purdue University academics and activities. Contact Debby Weber, Recruitment, P.O. Box 5545, Lafayette, IN 47904, (317) 448-8711.

FOR SALE - 1912 dinner service for 12, T. Haviland, white with gold trim, six service dishes, 92 pieces, \$650. Louis XVI Ormolu commode, Burl walnut, marble top and gilded metal drawers, \$1500. Chippendale style mahogany bookcase with graduated drawers on bracket feet, \$2,600. Green and gold Chinese lacquer cabinet, 5 feet tall, interior has many small drawers, \$1,900. Mahogany sideboard, Federal style, \$1,000. Bocar oriental red runner, 16 feet long, \$600. Call (317) 253-1865.

CENTRAL INDIANA medical consulting organization seeking permanent part-time board-certified/eligible family practitioner, internist or OM physician to provide consulting services and health evaluations for business and public safety organizations. Flexible schedule, unique opportunity and excellent potential for growth. Please send curriculum vitae to P.O. Box 44142, Indianapolis, IN 46244.

FOR SALE - Endoscopes. 2 Ritter electro-hydraulic exam chairs, \$900 each. Shampaign OB/GYN table, model #2605NL, never used. \$1,000. Amsco electric table, model #2080, \$1,200. Exam floor, ceiling rail lights. Hydro therapy tubs. Autoclaves. Microscopes, steroptic, etc. Pediatric scales, digital and manual. X-ray units, viewers, cassettes, tanks. Ultrasound cleaner. Blood bank freezer. Blood chemical and analyzer QBC. ECG monitors. GE SRT Ultrasound 3.0 sector-3.5 linear transducers, excellent condition, \$2,500. Siemens Sircam 103-100mm film camera with receiver and carrier, A-1 condition, \$2,500. Send for list of much more equipment. Phone, fax or write Bernard Medical, 1555 Dixie Highway, Park Hills (Covington) KY 41011, (606) 581-5205.

URGENT CARE PHYSICIANS WANTED: Arnett Clinic, 115-physician multispecialty, seeking BC/BE FP candidates for our two urgent care centers in Lafayette. 12-hour shifts, 8 a.m. to 8 p.m. Approximately 50-60 patients per day. Many benefits including CME funds, professional liability, relocation. Dynamic community, a great place to live. Money magazine top 20. Physician Recruitment, Arnett Clinic, P.O. Box 5545, Lafayette, IN 47904. (317) 448-8000, 1-800-899-8448.

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■ classifieds

RETIRED PHYSICIANS - Thinking of retiring from the battle over shrinking medical payments? Leave these headaches to us. We are looking for seasoned primary care physicians (all specialties) who want to work 1/2 or 3/4 days several times a month. We are located on Lake Michigan in northern Indiana. Please call (219) 874-2500.

115-PHYSICIAN MIDWEST MULTI-SPECIALTY seeking BE/BC candidates: family medicine, pediatrics, urgent care. Serving 14 counties with a population draw of over 320,000. Guaranteed salary first two years, relocation expenses, CME funds, paid professional liability, investment plans, all part of the many benefits. A safe, thriving family community with stable economy offers a rewarding quality of life. Through Purdue University we enjoy academics, cultural events, entertainment and Big 10 sports. Physician Recruitment, Arnett Clinic, P.O. Box 5545, Lafayette, IN 47904, (317) 448-8000, 1-800-899-8448.

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PEDIATRICIAN, BC/BE, to join general pediatrician and neonatologist-pediatrician in northwest Indiana. Superior schools and community, many recreational opportunities, 50 miles from Chicago. Six weeks per year PGE and vacation. Early full partnership.

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Classified advertisements are published as a service to members of the Indiana State Medical Association. Only ads considered to be of advantage to members will be accepted. Advertisements of a truly commercial nature (ie: firms selling brand products, services, etc.) will be considered for display advertising. All orders must be in writing and will automatically be set in regular classified type. Box numbers are not available.

Charges:

- * ISMA members 25¢/word (\$15 minimum)
- * Non-members 75¢/word (\$30 minimum)

Deadline: Six weeks preceding month of publication.

Payment procedure: Payment in advance is not required. Invoices and tearsheets are mailed to advertisers upon publication. *Indiana Medicine* is issued on the 10th of the month six times a year, in January, March, May, July, September and November.

Address: *Indiana Medicine*, 322 Canal Walk, Indianapolis, IN 46202-3268.

Advertisements for employment containing specifications as to race, creed, color, age, religion, sex, ethnic origin or national origin may be unlawful and professionally improper. Accordingly, discriminatory wording is not acceptable in *Indiana Medicine*. In such a case, *Indiana Medicine* will modify the wording and notify the advertiser of the change.



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The Journal of the Indiana State Medical Association

May/June 1996

Vol. 89, No. 3



How solo physicians view their practices

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INDIANA MEDICINE

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features

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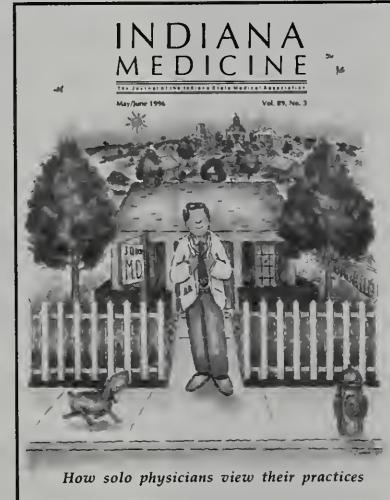
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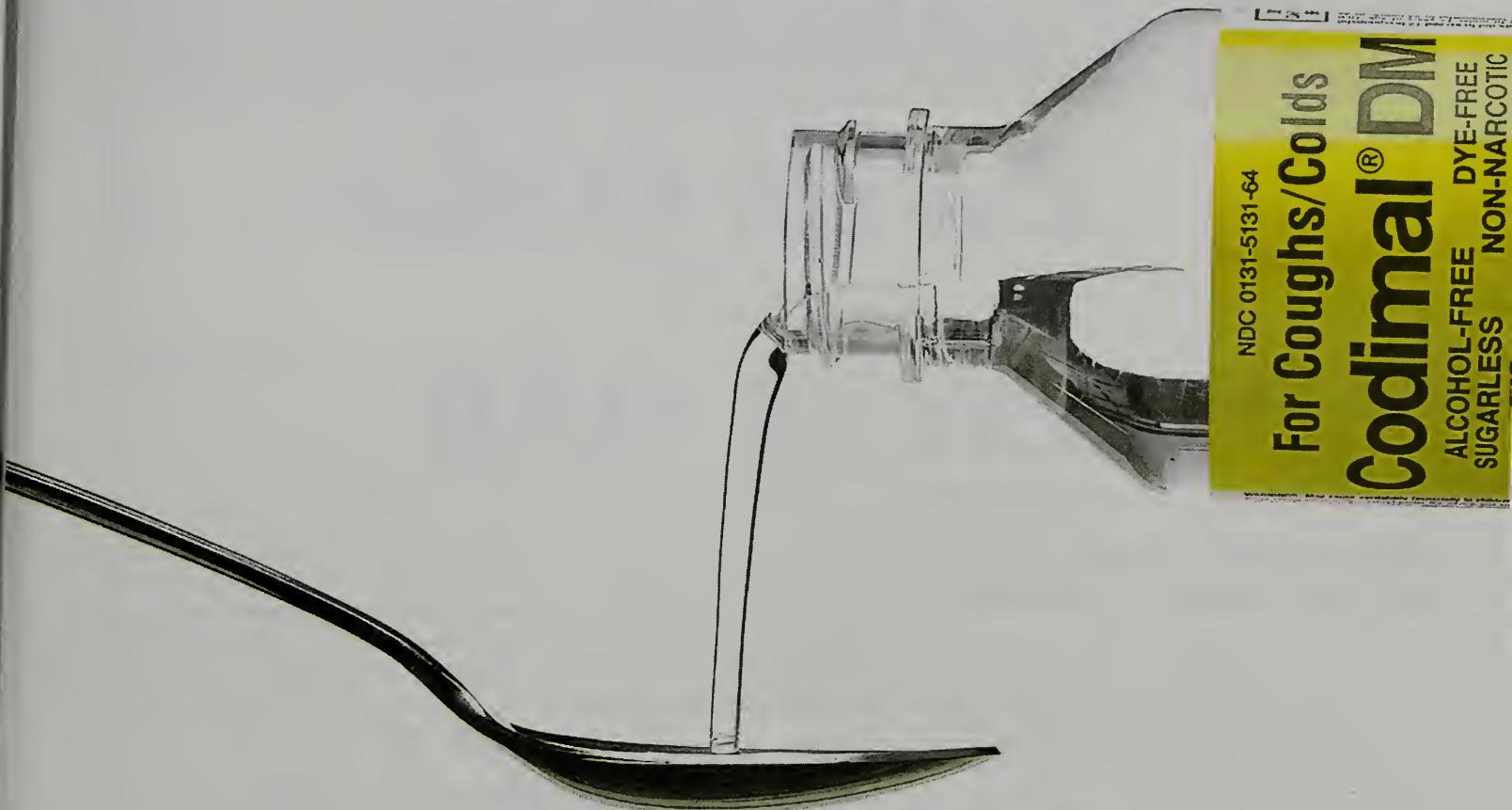
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CME credit to be offered at 1996 ISMA convention

The ISMA and the Indiana University School of Medicine will co-sponsor four continuing medical education activities at the 1996 ISMA convention, to be held Oct. 18-20 at the Westin Hotel in Indianapolis.

David B. Nash, M.D., the first director of the Thomas Jefferson University's Office of Health Policy and Clinical Outcomes in Philadelphia, will speak during the opening session of the ISMA House of Delegates Friday, Oct. 18. Dr. Nash has been nationally recognized for his work in managed care, outcomes management, medical staff development and quality-of-care improvement. He serves on an expert panel convened to advise the AMA on its Physician Performance Assessment program.

"Health Care Delivery System Options," "Practice Acquisition" and "Best Health Care Practice Benchmarking" are the other CME programs. They will be offered Saturday, Oct. 19.

Watch your mail for more information on the convention.

ISMA practice management seminar focuses on capitation

Which reimbursement model is best for you? How can you become more profitable under a capitation contract? How can you avoid conflicts and negotiate effectively with managed care executives? These questions and more will be answered at "How to Roll the Dice and Win With Capitation," a practice management seminar to be presented by the ISMA June 7 at the Adam's Mark Hotel in Indianapolis.

Stanley Pappelbaum, M.D., Rancho Sante Fe, Calif., a pediatric cardiologist who develops physician contracting organizations, will discuss how risk-taking can put physicians in the driver's seat. Nathan Mowery, J.D., of Krieg, DeVault, Alexander & Capeheart of Indianapolis, will explain what risk pools exist and how physicians can negotiate a share in the profits left in these pools at the end of the contract period. Kam McQuay, C.P.A., of Blue & Co. in Indianapolis, will discuss how to approach a market, set a price and retain responsibility for providing health care services within that price.

For information on this or any other ISMA practice management seminar, call the ISMA, 1-800-257-4762 or (317) 261-2060.

Correction

The January/February 1996 issue of *Indiana Medicine* stated that "... physicians and other health care providers have encountered significant delays and errors in Medicaid reimbursement, resulting in bankruptcy in some cases." This information was taken from an Indiana General Assembly Legislative Council Resolution, but the Indiana State Medical Association could not find evidence of any physician bankruptcies resulting from Medicaid reimbursement problems. We regret the error.

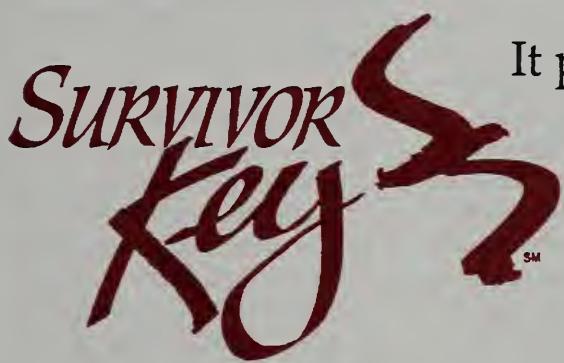
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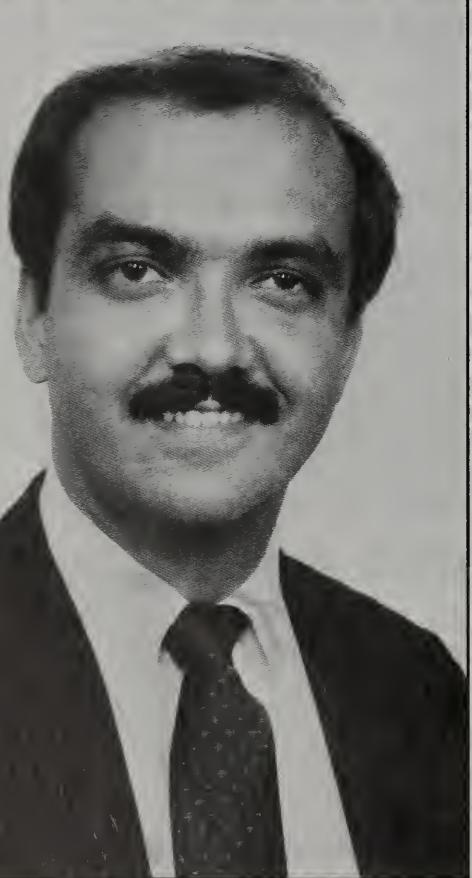
If the questions in this interview sound like ones you've been wanting to ask about managed care, it's probably because they were submitted to *Indiana Medicine* by practicing Indiana physicians.

To get some answers, we went to Mark A. Hochstetler, M.D., president of managed care services with Parkview Health System in Fort Wayne since June 1992. He is responsible for managed care operations and 60,000 covered lives in Indiana and Ohio. Parkview Health System is a not-for-profit tax exempt corporation, with three hospital affiliates in northeast Indiana. Dr. Hochstetler is also chief executive officer of Parkview Memorial Hospital's Signature Care PPO and medical director of the Parkview PHO.

Before he joined Parkview Memorial Hospital in 1992, Dr. Hochstetler was medical director and vice president for the central U.S. managed care subsidiaries of Lincoln National Corporation in Fort Wayne. From 1988 to 1990, he held part-time positions as associate medical director and manager of health services with Key Health Plan HMO in Indianapolis while practicing as a family practitioner.

A graduate of the Indiana University School of Medicine, Dr. Hochstetler is a member of the American Academy of Family Physicians, the American College of Physician Executives and the National Association of Managed Care Physicians.

Although Dr. Hochstetler may say things you don't want to hear, he hopes you will come to share his view that managed care offers physicians incredible opportunities to impact the future of their profession.



Indiana Medicine: What's your definition of managed care?

Hochstetler: My definition of managed care would be any organized attempt to match up health care delivery with a network of selected providers who agree to be accountable for both the clinical outcomes as well as, depending on the network arrangement, the financial accountability for the care. That covers a fairly broad set of arrangements that are out there. Some people would argue that only HMOs are truly managed care, but I tend to define it fairly broadly. I view managed care as a continuum of arrangements that include PPOs, POS plans, HMOs and other weird arrangements.

Indiana Medicine: How does managed care differ from capitation?

Hochstetler: Capitation is simply one form of reimbursement under a managed care arrangement, although you can't look at it simply as a reimbursement arrangement because capitation managed by providers forces a comprehensive review of everything you do in health care. It implies a limited set of providers. It implies not only accountability for clinical outcomes, but clearly accountability for financial results. It forces you to carefully examine the process of clinical care and the roles various providers play in the process.

Managed care isn't a monolithic arrangement. It is an entire set of tools to improve the way care is delivered and financed. HMOs are simply an insurance mechanism or arrangement to accomplish part of what managed care aims to do. There are a whole

proactive physicians

variety of mechanisms to do that. Indiana currently recognizes two. It registers and regulates PPO arrangements and regulates and very closely monitors HMO arrangements. They are just insurance mechanisms.

Indiana Medicine: Capitation is a word that seems to strike fear into the hearts of physicians, particularly in areas like Indiana where maybe it hasn't penetrated as far as in some other areas of the country. Can you briefly discuss capitation from a physician perspective?

Hochstetler: Capitation is viewed by many physicians as an unknown evil. They've heard a lot of bad stories about it. One problem with managed care is that, like any new and emerging way of doing business, there have been a variety of entrepreneurs involved who have made a quick buck and gotten out. Some people have been hurt in capitation arrangements because they didn't know what they were doing, they didn't read the fine print, and they got burned.

As a physician, I think that capitation correctly administered by a provider-sponsored network can actually be better for patients because it allows the physician to allocate dollar resources to health care needs in a rational way. From an ethical point of view, I believe it is critical that capitation risk is assumed on a group basis, not on an individual basis. That allows the individual physician to act as the patient's advocate while meeting the group's expectation that they will practice high-quality medicine, which almost always costs less than poor-quality care that forces the clinical process to be re-

peated or intensified.

With fee-for-service, we're on a benefit plan that generally only pays for illness care, not for health care. The benefits are limited to whatever the insurance company or the employer decided they wanted to cover. Typically, you would find the plan doesn't cover immunizations, doesn't cover physicals, doesn't cover anything other than illness care because insurance was originally organized only to cover catastrophic events and illness. Insurance tends to be illness-oriented, not health-oriented. There's a saying in the managed care industry that the best way to reduce medical care cost is to increase health. Typical insurance programs don't really promote an increase in health status. Capitation is much more likely to promote this, especially if it is administered by a responsible provider group.

Indiana Medicine: How deeply does managed care have to penetrate a market before a physician practice becomes vulnerable to going out of business or other problems?

Hochstetler: The question makes the assumption that if I don't change anything in my practice and managed care makes an entry, how long before it becomes a threat to the well-being of my practice? To assume that you're not going to change the way you do business in a rapidly changing managed care environment is probably a mistake. In clinical medicine we deal with new drugs and therapies and new approaches to care all the time. To assume that the business side of medicine won't also change is probably a bit

naive. Thirty percent HMO penetration of a market, without physicians recognizing that fact in their business planning, will pose significant financial challenges for the practice.

Indiana Medicine: How can a physician tell if his or her practice is vulnerable?

Hochstetler: The first thing a physician will notice is that the trend in income or net revenues from year to year will begin to flatten out or even begin to decrease. You're certainly seeing that in some of the metropolitan marketplaces here in Indiana, particularly with the subspecialties. That's mostly due to discounted fee-for-service reimbursement, where physicians have contracts stipulating the acceptance of payment in full from the insurer and collect nothing from the patients except a copay. These fee schedules are starting to flatten out or decrease. There's no capitation involved there. It's simply being paid less for what you do because there's significant competition from other physicians.

A second indicator would be that you'd actually see a shift in your payer mix. You would see more managed care contracting where payers are paying you an amount that is substantially less than your charges and that may move close to or below your costs. If you begin to see that segment growing in your market and in your practice, that's another sign that you may be vulnerable.

In this kind of marketplace, not knowing the actual cost of doing business is a real detriment. By that, I mean analyzing the work that you do and the care that you

provide, let's say on a relative value unit basis, so that you would know your cost per relative value unit. Most physicians don't know their costs. They don't know much about their fixed costs, variable costs or their margins, and they really don't know what their reimbursement is. They do know what their charges are, but I believe those are a poor basis for financial analysis. As managed care penetrates the marketplace to a greater degree, no one pays your charges anyway, so if you gauge everything by "this is a percentage of my charges," that's like talking about the manufacturer's suggested retail price on a car. GM doesn't report its financials back to its shareholders based on MSRP, they report it back on what they actually collect for a car. Physicians should look at their practice in the same way.

Indiana Medicine: How does a physician determine his or her cost of doing business?

Hochstetler: Like any other business, physicians need to know their fixed costs and their variable costs, because if you're asked to take a fee schedule or a capitation arrangement, your financial success will be directly proportional to your ability to manage your costs. The best way I could put it is that we're moving to a different costing or pricing mechanism than what we've had historically in medicine. We've always been in what I call a cost-based pricing (charges) mode, which meant we decided what price we would charge in the marketplace on a cost-plus basis. Historically, we've always said, OK, this is what it costs to run an office, to hire an of-

fice staff. That's my cost. I'm going to add my target income to my cost, here's the number of units I think I'm going to provide next year, and, voila, that's my charge. And we basically got paid that charge for a long time.

Today, we're seeing the flip side of that, where the purchasers, either directly as employers or through their agents, the insurance companies, are saying, "No, this is the price we're willing to pay, so you're going to have to take that price, whether it's a maximum fee schedule or a capitation amount, and you're going to have to control your internal costs in order to generate the net income that you want." We've never really had to deal with this before. I call it price-based costing.

That's probably one of the big lessons of capitation – you have to know your cost, because if your costs exceed or leave very little margin at the fixed reimbursement you're receiving, you're not going to do very well as ongoing business.

Indiana Medicine: All right, so a physician reads that Hochstetler says, "I've got to know my cost." What does that doc do? Does he call an accountant? Does he call a consultant? Does he tell his practice manager, "Go figure out my cost"?

Hochstetler: Any and all of the above. I can think of physicians here in Fort Wayne, including some who are solo, who have done it on their own. They've set up their costs and their fee schedule on an RVU (relative value unit) basis. You can pick Medicare or the McGraw Hill system to do the analysis – they're just tools to per-

form the analysis. Some large specialty groups have had their business managers do it themselves. Other physicians have used consultants. A solo physician can do it himself if he has the time, some good analytical skills and a good billing information system. But the point is they have begun to identify their costs of doing business.

Indiana Medicine: What can physicians do to position themselves for managed care?

Hochstetler: They can do a number of things. They need to know their costs, as I emphasized in the last question. They also need to know patient satisfaction data and use it to improve their practice. The Fort Wayne Medical Society is working on a project to see whether we can offer patient satisfaction surveys on a service bureau basis to the physician membership. The goal is to give physicians access to patient satisfaction data from a credible third-party source, which can be utilized in quality improvement efforts as well as a benchmark against the member satisfaction data gathered by managed care organizations.

Physicians must ensure that patients have adequate access to care, which involves both geography and hours.

In an increasingly competitive marketplace, knowing what kind of clinical outcomes you have achieved is important. The idea there is that we're all trying to achieve the highest obtainable clinical outcome we can for the lowest justifiable cost, and that involves some benchmarking. If you're a cardiology group, [you want to know] how many cardiac catheterizations you perform com-

pared to a similar group, and what are the clinical results? How many of those are false positives? In other words, we thought they had heart disease, but when we did the cath, it was normal. There's always a certain number of those, but if you do too many, maybe you're being a little too aggressive in doing your heart caths. Again, we have to be able to demonstrate how good we are.

Everyone has always taken for granted that we're all providing the highest quality medicine, but purchasers are beginning to question whether that's really true. Is more necessarily better? Being able to demonstrate that you know how to provide good care management, having good communication skills, knowing how you compare with the competition – they are all important.

Being board certified is important. That's a pretty controversial area in medicine but it's certainly being demanded by the purchasers of health care, which are mainly the employers. Being able to demonstrate continuing medical education activities, that you're attempting to improve yourself, is important. What it really boils down to is showing that you provide the highest value to your customers, because you are more than competent internally. It's been hard for us to, one, recognize who exactly are the customers and, two, determine what is important to them. That's one of the challenges in medicine today.

Indiana Medicine: Let's say we have a small group or even a solo practice. What are the options for putting in place a mechanism that will generate the appropriate outcomes data, patient satisfaction

data, etc.? Again, are we talking about consultants, or how would that work for somebody who wants to implement that in their practice?

Hochstetler: It's very difficult for a small practice to do that. Quite frankly, the level of organization needed to really get at those questions and get at the resources required is more and more requiring at least 30 to 40 physicians organized fairly functionally. The organization doesn't require a medical group with merged assets; it can

The bottom line for physicians dealing with managed care is the need to get organized.

be an IPA, MSO or PHO as long as everyone agrees to be accountable to each other and have common goals.

You also have to look at how you interact with the medical care system. Medical care is very interdependent. Ear, nose and throat specialists don't stand separately from cardiologists who don't stand separate from family physicians. They're all very interrelated through and overlapping responsibilities for patients they care for on a joint basis. Within a single practice you can look at your cost, and then your problem, of course, is where do you find benchmarking data to compare your cost to somebody else. That's where a consultant or a good accountant can get

involved, especially someone who specializes in health care services.

My advice to physicians is that they need to get organized. I don't mean in professional trade associations like the state medical association, which I think is fine for political purposes and other services the association provides, but for the business purposes of health care. You're talking about a \$1.1 trillion dollar industry that consumes 14% of our gross domestic product. It's a big business; to think it's not is to kid ourselves.

The key to success in any kind of business, especially when it's rapidly changing, is some type of organization. What you see is physicians organizing themselves into PHOs, MSOs; you see providers in some areas actually getting their own HMO licenses or forming networks. If you get organized, you can share resources, expenses and expertise. You gain market leverage, and you make yourself more attractive to purchasers who would rather sign one contract instead of 200. The bottom line for physicians dealing with managed care is the need to get organized.

Indiana Medicine: What are managed care plans looking for in physicians? At a minimum, they seem to want board certification.

Hochstetler: That's true. It is an expectation driven by the report cards (HEDIS) being issued by HMOs to employers. One of the data items on the report card is the number of board-certified physicians in the HMO plan.

They're also going to look at access questions. Do you provide geographic coverage? For instance, if you're a cardiology group, do members of the group staff clinics

in outlying hospitals? What are your clinical outcomes? What are your patient satisfaction scores? Are you willing to accept the reimbursement arrangement? Can you accept the reimbursement arrangement and remain financially viable? In other words, do you know your costs?

You're also going to find that many payers assume that quality is the same across the spectrum. I've had large employers tell me unless you can prove that you're appreciably better or they are appreciably worse, we're going to assume that the quality is the same across the board, and the only thing to differentiate the services you provide is the price that you're willing to accept. A pretty cynical outlook, but I think a realistic one in an environment where there isn't a great deal of comparative data, where the employer doesn't really know how anyone defines value, and where the approach to the marketplace is to buy at the lowest cost, which everyone understands. In some cases, we have more capacity (both physicians and hospital beds) than what the system requires. Anytime you have an oversupply situation, price becomes the principal factor in negotiations.

Indiana Medicine: Once some fairly reliable or effective quality measures are instituted, does that mean you're going to have some attrition on the provider side?

Hochstetler: I think it is a potential for some segments of our industry. It's a little hard to read. You hear all the horror stories from the West Coast, but you have to be careful, extrapolating the West Coast experience to Indiana. Health care is

very local and regional. To extrapolate you must understand the market forces in both locations and apply the experiences that are common. To apply broad generalizations or dismiss it all as totally irrelevant are equally dangerous approaches to strategic planning.

Indiana Medicine: Do managed care organization want a jack of all trades?

Hochstetler: In general, the answer is yes. The span of services defined by that phrase varies anywhere from being pretty broad for a specialty like family practice and somewhat more narrowly defined in basic cardiology. Unless you provide a very unique service that no one else can reasonably duplicate, there's going to be competition for those services. As a purchaser, the more value you offer my employees, in other words, the greater the spectrum of services in one place, the more competitive you're going to be.

Indiana Medicine: Can you give us an example?

Hochstetler: Let's take a specialty like ophthalmology. If you offer just one of the subspecialties in ophthalmology, you're vulnerable to competition in the marketplace unless you're absolutely the best at it and you can show a demonstrated track record that you have the best clinical outcomes at the most competitive price. Otherwise, you need to be prepared to offer approximately 95% of the services found in ophthalmology.

Indiana Medicine: How long does it take managed care to expand, say, from 10% to 70% in a given

marketplace?

Hochstetler: What I tell people is, if you look at southern California, which is a benchmark for a lot of people, you basically saw people move through the four stages of managed care over a period of about 10 years. Many people feel that in the Midwest those changes won't take nearly as long. There are a couple of reasons for that. One is that the mistakes have already been made out on the West Coast and the East Coast and the people involved are likely not to make some of the same mistakes again. They're smart people. The marketplaces out there are becoming very crowded, and so the same individuals who helped formed them – and they're not just consultants or insurance companies, they're also physician groups – are beginning to take that success record, those lessons learned, to other marketplaces around the country and make things happen. It's entrepreneurial activity and it's here in Indiana today. There's a large California IPA, the Heritage Medical Group, operating in Indiana in an attempt to organize the marketplace.

Indiana Medicine: What parts of Indiana is Heritage looking at?

Hochstetler: I don't know the extent of their activity exactly, but they are active in most areas of the state. In fact, they're in places people would find surprising.

Indiana Medicine: Why is that?

Hochstetler: In southern Indiana counties where you wouldn't think there's much managed care, Heritage is contracting physicians into

a physician IPA arrangement. They're a layer between the physician and the payer. Basically, they feel they know how to organize a marketplace and they feel providers in Indiana don't know how to organize themselves. They feel there is a business opportunity because they understand how care is provided and financed. They see an opportunity in a relatively immature marketplace to come in, organize how care is delivered, attach to that the willingness to accept accountability for the financial part of it, and basically make a nice living doing it.

You're going to see changes more quickly in Indiana than what you have seen in other markets. We shouldn't sit here and think that it's not going to happen in Indiana. If nothing else, we have an obligation to ourselves, our communities and our patients to ensure that health care dollars are spent on health care and don't simply end up as bounty money in the pocket of an entrepreneurial health plan that took advantage of a disorganized provider community and a set of purchasers who were simply delighted to slow down the rate of increase in their premiums.

Indiana Medicine: What happens to physicians whose practices are owned by hospitals which in turn may be threatened by a managed care take-over. Is that a real life scenario here?

Hochstetler: It assumes that there are going to be a fair number of hospitals going out of business because of managed care coming to this market, and I would say that in Indiana that's not going to happen to a great extent.

If you look at Indiana in general, because of our history of certificate of need laws, the state controlled the proliferation of hospitals and facilities for 25 years, and Indiana in general doesn't have too many hospitals. We still have too many hospital beds, but the hospitals have been doing a good job of downsizing themselves to accommodate the marketplace.

As a result, physicians employed by hospitals and health

We shouldn't sit here and think that it's not going to happen in Indiana.

systems are relatively secure because of the capital available in the hospital. From a business perspective, they are in better shape than the majority of physicians, who have no financial reserves for capital investments. Most of the hospitals that would be threatened with going out of business probably can't afford the investment required to invest in physician practices.

Indiana Medicine: How does managed care affect a physician's income?

Hochstetler: It probably depends on your specialty. Primary care physicians are generally going to see their incomes stay fairly stable and perhaps even increase, depending on what risk arrangements they enter into. How much

accountability do they want to accept for managing various patients in a delivery system and the finances that go with it? In other words, if you're a primary care physician, you can take risks for the services that you provide in your office, or you could take risk for all professional reimbursement, which would include all specialists that you refer to, or for the entire insurance dollar, which includes hospitals and facilities. Various physician groups have done that in various ways.

Specialists, I think, in general will see their revenues or incomes begin to flatten out and perhaps even decrease, although the forward-thinking specialists who join up with the right partners, get themselves into organized contracting arrangements and get access to capital, should do just fine financially.

Primary care physicians, at least for now, tend to be much better insulated against the possibility of decreasing income.

Indiana Medicine: How does managed care in Indiana differ from managed care in other markets?

Hochstetler: For one thing, we have a dramatically lower managed care penetration than all the four states surrounding us. It's very striking if you look at a map which shows the degree of managed care penetration in all 50 states. Illinois, Michigan, Ohio and Kentucky all have about 19% to 22% HMO penetration. Kentucky lags a bit behind that, but I think it is about 14% to 15%, and then you have Indiana at around 9% or 10%.

Indiana Medicine: How

"trapped" are physicians once managed care has penetrated a marketplace?

Hochstetler: They're as trapped as they want to be. Physicians have a real opportunity in front of them. I've moved in the last six years from being someone who was in clinical practice taking care of patients, but dabbling with managed care on the side as a career interest, to being involved in it full time today. That's my personal choice, but I genuinely enjoy helping other physicians approach managed care as an opportunity to improve both the clinical and the financial aspects of care. In fact, managed care is really just another evolutionary step in our transition to wherever we're going with health care in general. It's not an end in and of itself.

The point for physicians to appreciate is we've been very content for a long time to simply providing care to individual patients who we saw on a one-on-one clinical basis and with payment largely provided by a third party. We are now challenged with the premise that this old paradigm doesn't necessarily hold up as a sustainable strategy into the future. We've been very happy to accept payment for our services, but disengaged ourselves from the other aspects of health care financing. I don't think that's sufficient any more.

Physicians need to take a lead-

ership role and be proactive, not reactionary, which is what we tend to do as a profession. When the Clinton health plan died, the federal government ceded health care reform to the marketplace. It's an incredible opportunity for physicians to step up to the plate. We need to develop some kind of vision of how we think health care ought to be provided and financed in our communities. Physicians are the key. As I tell people, the most expensive instrument in the hospital is not the newest MRI scanner the hospital just purchased. It is the physician's pen. That instrument controls 85% of health care costs. As a result, physicians have an incredible responsibility and an incredible opportunity to impact what goes on.

Indiana Medicine: How easy is it for physicians to move into a managed care market?

Hochstetler: If physicians want to get into managed care and become successful at it, it comes down to being organized, realizing that not everybody can or wants to participate in that kind of enterprise. The challenges for organized medicine are interesting in that state medical societies often look at whether they should organize managed care plans. The concern I have about that is the assumption that everybody can participate who wants to, usually on the basis they have a license and they are a mem-

ber. How does a plan that includes everyone, regardless of the value they bring to the business enterprise, really compete in an increasingly competitive marketplace? The challenge is for physicians to look at what their external customers want for their answers – then plan and move forward accordingly. Pick your partners carefully, move forward deliberately and then run with your organization as fast and hard as you feel necessary.

Indiana Medicine: What is the enticement of managed care?

Hochstetler: For the purchasers, managed care offers an opportunity to get a handle on health care costs. Perhaps even more importantly, it gives them an opportunity to define and increase the value of health care.

Managed care is attractive to physicians who are willing to be accountable for the outcomes of health care, not just for the clinical delivery but also, to varying degrees, the financing of health care. It's enticing because, for the first time, you've got dollars to do things that you think are right, [such as] paying for immunizations, encouraging patients to modify their lifestyle and hiring staff to provide patient education. □

Bob Carlson is a health care writer based in Indianapolis.

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How solo physicians view their practices

Bob Carlson
Indianapolis

You set your own hours. Go on vacation when you want to. Decide which managed care contract you're going to sign, which you're going to pass on. Your staff thinks it's time for a new practice information system? It's your call. Want to send your billing person to a refresher course on coding? Reduce your fee for an indigent patient? Cross-train your staff? You are the captain of your ship and you simply make it so. No executive staff meetings. No memos. No office politics. No muss. No fuss.

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These benefits keep many Indiana physicians in solo practice and far outweigh any negative aspects.

Yet more and more solo practitioners are joining various group practice models or accepting positions as employees of corporate health care entities. For the most part, these physicians seem to be

reacting to larger trends, such as higher medical school debts, more red tape and the growth of managed care.

According to *Physician Marketplace Statistics* of the AMA's Center for Health Policy Research, 27% of physicians in the United States were solo practitioners in 1995, compared to 35% in 1990.

Although the urge to merge seems stronger than ever, thousands of solo physicians are still bucking the trends. To find out more about this increasingly rare breed, *Indiana Medicine* interviewed nine solo physicians in Indiana. This is an informal, decidedly *unscientific* sample. Here's what we found out.

Independence. Freedom. Autonomy.

These are the words C.M. Hocker Jr., M.D., a New Albany family practitioner; Tom Millikan, M.D., a New Castle general practitioner; and Thomas Ringenberg, D.O., a Huntington family practitioner, use to describe what they like about solo practice. Almost without exception, our solo physicians are a happy lot. Business is good, their staffs are the best, their managed care contracts are working out all right, and they love their patients.

For eight of the nine physicians we talked to, the advantages of solo practice outweigh the drawbacks. Three had partners or were in groups earlier in their careers. Looking back, they remember that overhead was astronomical and that there were a lot of chiefs and not enough Indians.

Still, some of the most ardent soloists admitted that they

wouldn't mind having a partner, if only to share the overhead.

"It's not like I'm recruiting somebody," says Wayne White, M.D., a Connersville family practitioner. "But hey, if somebody comes along and is compatible, welcome aboard."

Grace Walker, M.D., a Terre Haute family practitioner, agrees that part of her would like to be in a group, too. "But," she says, "I don't want to be married to 50 doctors."

Oh, solo mio!

At first glance, being able to get away would seem to be a major problem for solo practitioners, and almost all of our interviewees did put coverage first on their list of disadvantages. Dr. Millikan says he sometimes goes six months without a day off (he admits he has a very understanding wife), but then his brother comes in from his internal medicine residency so the Millikans can take a vacation.

Most of our solos have managed to work out more conventional call-trading arrangements with colleagues in their communities. Dr. White, for example, has a contractual agreement with two solo colleagues in the area that gives him two out of every three weekends off. "It's automatic," he says. "At 5 p.m. on Friday, that pager goes in the drawer and I don't pick it up till eight o'clock Monday morning."

Dr. Walker says she has never missed a vacation with her family because she couldn't get coverage, but she still worries about getting burned out and managing her time.

Not being able to interact with

their peers on a daily basis is a drawback, but again, these solos see their relative isolation as one of the trade-offs they make for running their own practices. They simply pick up the phone and call whoever they want to consult with. "I have a line to IU Medical School and Harvard Medical School," says Sjoerd Roggeveen, M.D., a Kentland family practitioner. "I use them about once a month. Otherwise, I rely on my local specialists."

Then there's the bureaucracy and all the rules and regulations. For example, says Dr. Roggeveen, there's the OSHA regulation that requires anyone who draws blood to wear gloves, which makes it impossible to locate some of the smaller blood vessels by touch. Hospital technicians tell him they simply cut the fingers off the gloves before they put them on, which of course defeats the purpose of the regulation.

Not surprisingly, more than one solo physician also complained about overhead. Everything, from the rent and utilities to staff salaries and the computer system, comes out of a solo practitioner's revenue. "My overhead would drop by about a third if I could get somebody to share the rent," says Dr. White.

Tempting offers

For some solo physicians, there's another option. Three of the nine physicians we talked with have been approached about selling their practices, but only one is seriously considering it.

"I can't keep up with the paperwork," this physician says. "I think that's the issue. Regulations. Between the CLIA lab, which I've done away with — I couldn't make

the inspector happy — then the insurance issues of coding and trying to keep that all up to snuff so that you don't get accused of fraud, so you end up underpricing things. It just makes it a little bit tougher in the long run, I think. Besides, everybody's asking about your practice now."

Dr. Walker, on the other hand, is convinced that the best of all worlds is the one she has created for herself after 11 years in practice. "I believe the best person to work for is myself," she declares. "I don't want to work for somebody else because somebody else always wants more out of me than I think I'm able to deliver and then they want to give me less."

The other solo who has been approached about selling is happy with the status quo but may change his mind if his situation changes.

"Boy, it's kinda tempting," admits Dr. White, who has had several offers. "But man, you gotta sell your soul. This crew that I have in here right now, I must pay them well 'cause nobody ever leaves and we have had no problems. The morale is good, everybody's happy. If I had a lot of turnover and I was having to hire and fire people, I'd be wanting to sell it in an instant."

Solos and managed care

Seven of our nine solo practitioners already participate in some managed care contracts, and so far, they say they're going OK. Beyond that, it's difficult to generalize about how our nine solos are responding to managed care.

"On the HMO type things, you have to be able to supply the capital," says Robert Heavin, M.D., a Coatesville family practitioner,

"and if you have a couple of big risk problems, you know, one person can't share that kind of capital risk."

Brett Eaton, M.D., a Frankfort family practitioner, and Dr. Millikan expressed misgivings about the effect of managed care on patients and patient care. Dr. Eaton participates in three managed care contracts, and Dr. Millikan says he's not aware of participating in any, but that it's OK for any patient to sign him up for any insurance program.

"Patients just seem at a total loss what doctors they're going to actually see next," says Dr. Millikan. "I hear all kinds of stories from people. It really scares most anybody that I talk to."

Dr. Eaton concurs. "They don't really understand how the system works a lot of times," he explains. "I think the intent of the system is good, having a gatekeeper to keep the costs of medicine down, but I think in the long run, I've seen patients suffer from it. I don't think it's fair to them sometimes."

Some solo physicians are so concerned about being left out of managed care negotiations, and ultimately out of provider panels, that they're joining physician organizations (POs) and physician hospital organizations (PHOs).

"I think there's a risk in not being affiliated with a big group of being left out of some negotiations or managed care plans as managed care evolves and becomes more prevalent," says Dr. Hocker. "I'm in a vulnerable situation because I am solo, so I joined a physicians' organization that has several hundred physicians that contracts with managed care organizations. So far it's worked very well. Whether it will continue to work well, I'm not

Read fine print and train your staff, solos advised

If you intend to stay in solo practice, Michael Heaton of Heaton and Eadie, an Indianapolis CPA firm that provides services to physicians, has some suggestions.

Contract review and negotiation

Heaton's experience is that physicians can end up holding the short end of the stick because they don't read the fine print in the contracts they sign with third-party payers. If a contract gives the payer the right to change the fee schedule without the physician's approval, Heaton says physicians may not be aware that such changes were made.

"I don't think it's any secret that in Indiana, until fairly recently, we've been a classic everybody-signs-up-for-everything state. Very few contracts have been floated out to the physician population that haven't been signed and returned. Physicians are afraid that if they don't sign up for a particular program, they're going to be denied access to those patients, so they just sign up without reading the fine print or negotiating."

Payer monitoring

Which payers are you dealing with? Are you being reimbursed according to the provisions of the contracts you signed? How does one fee schedule compare to another payer's? Are you be-

ing paid on time?

"If we're not paying attention to the contract in its initial stages, it's normally reasonable to assume that we're not doing a good job of monitoring compliance with it,"

He says the best way to monitor payer compliance is to use software programs that automatically keep track of multiple fee schedule information.

Practice information systems

A good information system is critical, but it's more than a good computer. Heaton also includes policies and procedures to use that system and the information it produces effectively.

"It's not just a question of throwing money at computer hardware and software. It's also making sure that your staff knows how to use those devices to your best benefit."

Staff training

Many physicians who invest a lot of money in an information system don't allocate enough resources to train those who use the system. That includes continuing education on subjects such as coding and contracting.

"If I'm a solo practitioner and I'm looking at ways to preserve my income and therefore my lifestyle, the first thing most practitioners tend to do is to try to figure out a way to trim their overhead. We've seen a tendency in some practices, in an attempt to cut that overhead, to decrease the amount of staff training. I think that's being penny-wise and pound-foolish."

Now is the time that our staff needs to be more educated in dealing with insurance companies and third-party payers and managed care contracts."

Market research

Do you know where your patients are coming from? If you're a specialist, do you have a good handle on all your referral sources, not only physicians, but other potential referral sources? Do you know who your competitors are?

"Knowing your business is not just knowing how managed care companies and third-party payers are paying you, but involves a knowledge of who your competitors are and who your colleagues are and an understanding of how you might be able to work together with those people."

Strategic alliances and partnerships

Heaton suggests that a solo practitioner can hurt his practice as much by missing out on potentially good opportunities to partner as by entering into a partnership for the wrong reasons. What are the right reasons? Business reasons.

"I don't think you should just summarily dismiss any type of invitation to participate in any type of meeting about any type of organizational formation, whether it's an IPA or

(continued on next page)

Read fine print and train your staff, solos advised (continued)

some type of practice affiliation agreement or a PHO or whatever. I think it never hurts to listen. But by the same token, I think you have to be very careful about who your partners are. Size just merely for the sake of size I don't think is what we're after here. We're after the best way to run our practice."

Administrative support

Being a solo practitioner does not mean a physician is responsible for all day-to-day business operations of his practice. The trick, says Heaton, is to surround yourself with people whom you can rely on to look out for your best interest.

"You can always look to outside consultants such as those provided through ISMA's Second Opinion Program, but

at a minimum, I think we need to look hard at our internal staff and make sure that we're getting good advice from them on our practice operations on a daily basis."

Professional representation

For physicians who are thinking about selling their practices, Heaton strongly recommends professional representation in both the legal and financial areas.

"Normally, you're dealing with someone who has acquired other practices, who has some very definite objectives and ways that they want to do things, and that's fine. But I think that it's very important you have someone representing your interests in those negotiations as well." □

cause I'm a good doctor and I take good care of people. Managed care may change how I get paid, but no matter what you call it, it doesn't change how I take care of people. I believe there is a place for me in managed care because I'm good with patients, with utilization, and with documentation."

Project Solo

Good physicians all over the country and here in Indiana are finding out that managed care (please see interview with Mark Hochstetler, M.D., in this issue of *Indiana Medicine*) can be a Pandora's box full of unpleasant surprises. Happy patients, great outcomes and cost-effective utilization are one thing. Substantiating these measures with the data that payers want to see is a whole other ball game, one that most physicians in Indiana are just learning to play.

The sophisticated data-gathering and number-crunching systems that provide this information are beyond the reach of most independent physician groups and solo practitioners. That's why Steven Isenberg, M.D., one of the nine solo practitioners interviewed for this article, started Project Solo. Dr. Isenberg, an Indianapolis otolaryngologist, believes that the best way to preserve the role of physicians as independent patient advocates is to preserve independent and solo physicians.

"If we all become several giant groups," he says, "we can be easily manipulated into providing the kind of care that is dictated by an employer, whether it be a managed care company or an HMO or a hospital."

Project Solo members submit electronic claims, outcome survey and patient satisfaction survey

sure. It's something that I keep my eye on."

"I can see thunder on the horizon," agrees Dr. White. "I know managed care is on its way and it's going to be an inevitable part of my future. At this point, I have zippo contracts with managed care, but we've just started what we call this physician hospital organization with all the physicians in Fayette County. We're going to try to negotiate directly with the local industries for a piece of the health care dollar."

Other solos figure they've got a few more years before the full force of the managed care tide hits

Indiana, especially those who practice in smaller towns and rural areas. If they're the only physicians for miles around, they tend to feel more secure about the future than their colleagues in more densely populated urban areas and don't see managed care as an imminent threat.

Then there are physicians like Dr. Walker who are confident that there will always be a demand for their services, come what may. "Everybody's saying that if you don't belong to a group, then you're going to be left out of managed care," she says. "I believe I'll always have patients to see be-

data, which are analyzed and compared to existing data. Members then receive confidential feedback on quality of care and cost containment. Since he started it in 1994, Dr. Isenberg says Project Solo has grown to include physicians in about 37 states.

"I'd like to urge not only solos but independent physicians practicing in groups to weather the storm and handle their practice more like a small business," advises Dr. Isenberg. "I think we still have the opportunity to control health care for patients, which is our obligation, but we have to get our own house in order, and hopefully the market will come back to us."

A prognosis for solos

Helping physicians get their houses in order is how Michael Heaton makes his living. He is a shareholder in Heaton & Eadie, an Indianapolis CPA and consulting firm that provides services to the health care professions in Indiana. He has been representing physicians exclusively for 15 years.

His advice to solo physicians focuses on developing a more businesslike approach to the revenue side of the practice (please see box), including

- contract review and negotiation;
- payer monitoring;
- practice information systems;
- staff training and development;
- market research;
- strategic alliances and partnerships;
- administrative support; and
- professional representation.

"Right now, I would continue to be open to discussions about af-

How solos see the future

"More of a managed care environment and some capitation type systems." — *Brett Eaton, M.D.*

"I don't see anybody practicing solo as we knew it when I started 15 years ago." — *Robert Heavin, M.D.*

"There are going to be a few large conglomerates providing medical care." — *C.M. Hocker Jr., M.D.*

"Physicians will regain control of the market through physician organizations." — *Steven Isenberg, M.D.*

"I really see a lot of regular people falling through the cracks in medicine." — *Tom Millikan, M.D.*

"Preventive medicine will be the dominant theme in the next ten years." — *Thomas Ringenberg, D.O.*

"We're going to have about a 25-year problem with the public and the politicians understanding how to run medicine, but I think medicine will hold out, even the solo practitioner." — *Sjoerd Roggeveen, M.D.*

"I'll be busier." — *Grace Lee Walker, M.D.*

"I wonder if medicine isn't getting too digital." — *Wayne White, M.D.* □

filiation opportunities, maintain a good dialogue with colleagues and make sure that you have a good understanding of the economics of your practice," advises Heaton.

Is there a future for solo physicians in Indiana?

"I think there are always going to be situations where solo practitioners and smaller groups can do well," Heaton responds. "We have a very decentralized medical community in Indiana. We have smaller groups of physicians than other areas throughout the coun-

try. I think there's a future for solo physicians, but they're going to have to become more sophisticated in how they run their business. Without some sophistication in the financial management of practice, I see practices having erosions of profits and net income, and I think it's going to be difficult to maintain the type of margins that we've seen over the last several years." □

Bob Carlson is a health care writer based in Indianapolis.



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Dental · Medical Power

New Medicaid laws bring regulatory relief

Mike Abrams
ISMA Director of
Government Relations

Indiana legislators have given some relief to physicians frustrated by burdensome Medicaid regulations. The 1996 Indiana General Assembly enacted two bills that should solve some of the problems plaguing physicians and other health care providers involved in the Medicaid program.

During this year's 30-day short session, legislators also passed other bills of particular importance to physicians.

These bills dealt with topics including maternity length of stay, domestic violence insurance discrimination, liability for jail physicians and "gag rule" prohibition. Another bill of interest to physicians establishes a committee to study managed care issues.

Medicaid relief

House Bill 1219 requires the Office of Medicaid Policy and Planning (OMPP) to submit any implementation plan for block grants to the legislative Joint Select Committee on Medicaid Reimbursement. This bill was introduced by Rep. Jeff Linder (R-Waldron) in anticipation of the federal government's taking some action turning Medicaid into block grants with wide state implementation authority. Linder wanted to make certain that

Medicaid officials did not have unchecked authority to implement a Medicaid program with no legislative input. The joint select committee, chaired by Sen. Patricia Miller (R-Indianapolis), will have the opportunity to comment on any implementation scheme developed by the OMPP.

Senate Bill 175 allows the Medicaid agency to relax prior authorization requirements without going through the cumbersome rulemaking process. A major source of frustration with the Indiana Medicaid program has been the administration of prior

interest to be paid to the provider. These provisions of the bill were requested in response to physicians' complaints about delays in the payment of clean Medicaid claims. Some physicians had even called ISMA to report that they were taking out loans in order to meet their payroll requirements because Medicaid was not paying clean claims.

Another bill addressing the administration of the Medicaid program, Senate Bill 442, was not enacted. Introduced by Sen. Steve Johnson (R-Kokomo), the bill sought to transfer the administration

of the Medicaid program from the Family and Social Services Administration (FSSA) to the Indiana State Department of Health (ISDH). Although organized

medicine generally supported the transfer, the ISMA did oppose two components of the bill. As introduced, the bill would have rescinded the requirement that the state health commissioner be a physician, and it would have turned the executive board of the ISDH into an advisory board rather than a policymaking board.

On its second reading in the Senate, Sen. Patricia Miller secured passage of an amendment restoring the requirement that the state health commissioner be a physician.

During conference committee action on the bill, Sen. Johnson

The 1996 Indiana General Assembly enacted two bills that should solve some of the problems plaguing physicians and other health care providers involved in the Medicaid program.

authorization requirements. Busy phone lines, inappropriate responses to prior authorization requests and lengthy periods of being on "hold" have caused immeasurable difficulties in busy physician offices. Even some of those involved in administering the Medicaid program admit that some of the prior authorization requirements are unnecessary.

Senate Bill 175 also requires clean claims that are submitted electronically to be paid within 21 days. Clean claims submitted on paper must be paid within 30 days. If a clean claim is not paid by the statutory deadline, the bill requires

ordered a version of the bill that deleted the requirement that the health commissioner be a physician and caused the executive board to be advisory rather than policymaking. The ISMA worked to change both of those provisions and, eventually, a conference report was ordered that restored the requirement that the health commissioner be a physician. We were unable to convince the author of the necessity that the ISDH executive board remain a policymaking board, so ISMA's opposition continued.

Rep. Bill Crawford (D-Indianapolis), one of the four conferees assigned to the bill, agreed to withhold his signature on the conference report unless the executive board provision was changed. Since that change was not made, the lack of Rep. Crawford's signature precluded the bill from continuing through the legislative process.

This issue will almost certainly continue to be discussed in future legislative sessions.

Managed care to be studied

One of the most controversial health bills of the session was House Bill 1289. If the bill, initiated by the Indiana Dermatological Society, had passed in its original form, it would have allowed patients who are in gatekeeper plans to bypass the gatekeeper for dermatological and other specified services. However, the direct access bill, as it was known, did not pass in its original version. Instead, the bill that was enacted requires the managed care study committee to examine the issue, along with other aspects of managed care, including economic incentives present in capitated

managed care plans, impact of managed care on patient satisfaction, standards and criteria used to select and de-select providers, and the impact of managed care on patient access to specialty care.

ISMA efforts successful

Besides Medicaid relief, several items of interest to Indiana physicians were enacted this session:

- Maternity length of stay: House Bill 1075 was supported by ISMA Resolution 95-8. As it was enacted, the bill requires insurance policies that cover maternity benefits to cover a length of stay that is consistent with guidelines adopted by the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists. The bill, which does not specify in the law the exact number of hours that a person must stay in the hospital following a delivery, was opposed solely by the Indiana State Chamber of Commerce. Even representatives of the insurance industry stood up to voice support for the bill.
- Physician filing/signing birth certificates: Senate Bill 346 was introduced as a result of ISMA Resolution 95-9. This law requires that only an attending physician, a midwife or other person designated by the hospital medical staff and present at the birth may file a birth certificate.
- Domestic violence insurance discrimination: Senate Bill 306 was supported as a result of ISMA Resolution 95-44. This bill prohibits an insurer from denying, canceling, rating or refusing to renew a health insurance policy based on a person's status as a victim of abuse. Further, it prohibits insurers from considering domestic violence a pre-existing condition.

• Telemedicine licensure: House Bill 1294 was introduced as a result of ISMA Resolution 95-45 and initiated by the Indiana Roentgen Society. This bill requires out-of-state physicians who routinely practice medicine on patients in Indiana through electronic means to be licensed by the Indiana Medical Licensing Board.

• Liability for jail physicians: House Bill 1309 was introduced as a result of ISMA Resolution 95-48. This bill requires the attorney general to defend contract physicians who treat persons who are in the custody of the Department of Correction.

• "Gag rule" prohibition: Language to prohibit "gag rules" was inserted into Senate Bill 392 at the request of the ISMA. As enacted, this law will prohibit insurance companies from limiting physicians in what they are permitted to tell their patients regarding treatment options.

'Christmas tree' bill vetoed

House Bill 1280 became somewhat of a legislative Christmas tree during the final hours of the legislative session. Three of the tree's "ornaments," AIDS, syphilis and violence, were a result of ISMA resolutions:

- ISMA Resolution 95-4: This language requires physicians to counsel pregnant women as to the advisability of an HIV

- test, and to offer an HIV test to all pregnant women.
- ISMA Resolution 95-24: This language repeals the statutory requirement that all pregnant women be tested for syphilis during the third trimester. The new law will retain the requirement for a syphilis test during the first trimester, and states that a third trimester test must be conducted only if the pregnant woman belongs to a high risk population for which the CDC recommends a third trimester syphilis test.
- ISMA Resolution 95-40: This language enhances the criminal penalty assigned to persons convicted of assaulting/battering a health worker while the worker is performing his/her duties.

House Bill 1280 was vetoed by Gov. Evan Bayh because of concerns with language dealing with nursing homes. The section of the bill objectionable to the governor sought to extend the "certificate of need" law, which prohibits an increase in the number of nursing

home beds in a community unless certain conditions are present. However, the governor's veto may be overridden during a veto-override session day that is scheduled to be held in May.

Offense, defense

We often measure the success of a legislative session in terms of what bills passed against our opposition. The 1996 legislature did not deliver any legislation that the ISMA vehemently opposed – the Indiana Compensation Act for Patients (INCAP) is intact, and there were no big efforts to repeal the "any willing provider" act.

Legislators leaving

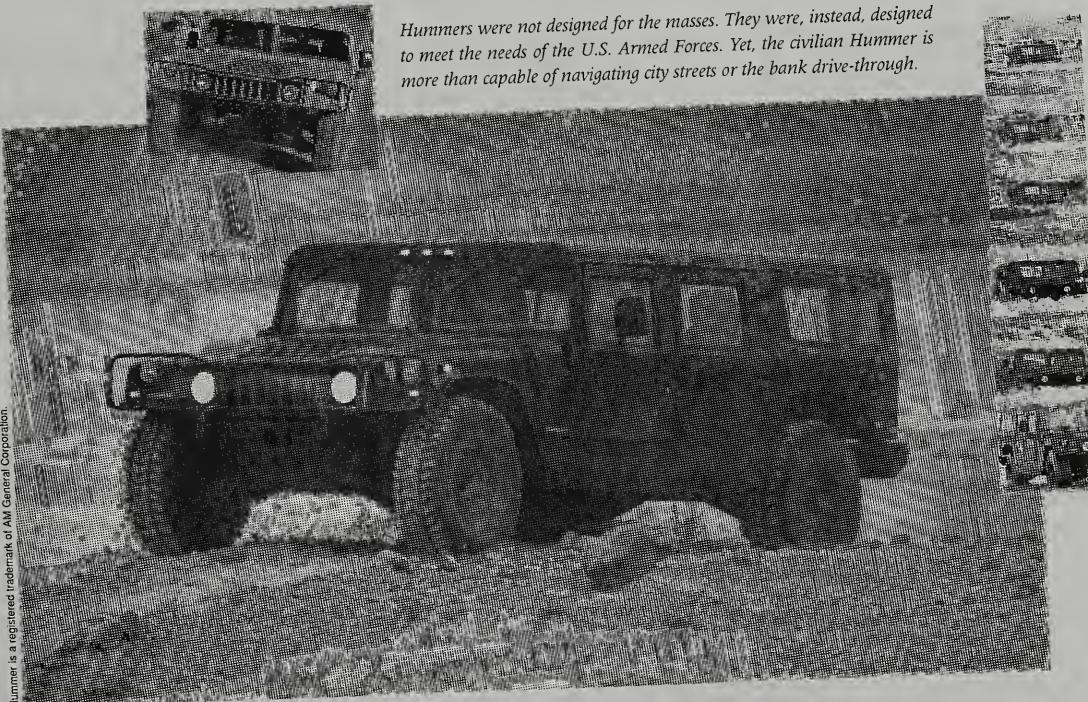
The 1996 elections could have a dramatic impact on health care issues in the Indiana General Assembly. At least four senators will not be returning. Sen. Dick Thompson (R-North Salem) is leaving to run for the U.S. Congress seat being vacated by U.S. Rep. John Meyers. Sen. Jean Leising (R-Oldenburg) is leaving to run against U.S. Rep. Lee Hamilton. Sen. Doug Hunt (D-

South Bend) and Sen. John Sinks (R-Fort Wayne) have chosen not to run for re-election.

Two state senators who are not up for re-election until 1998 are running for U.S. Congressional seats: Sen. Bob Hellmann (D-Terre Haute), the Senate minority leader, is running for the seat being vacated by U.S. Rep. John Meyers, and Sen. Joe Zakas (R-Granger) is running in the seat that is currently held by U.S. Rep. Tim Roemer.

Six members of the Indiana House of Representatives are not running for re-election. Rep. Steve Robbins (R-Connersville), Rep. Don Hume (D-Winslow), Rep. Jeff Hays (D-Evansville), and Rep. Jim Conlon (R-Crown Point) have all chosen not to run for re-election. Two incumbent state representatives are leaving the legislature to run for U.S. Congress: Rep. Kathy Willing (R-Lebanon) is running for the seat being vacated by Rep. John Meyers, and Rep. Richard McConnell (D-Princeton) is running for the seat currently held by Rep. John Hostettler. □

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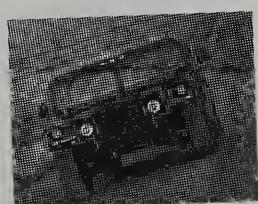
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Answers to your questions on Medicaid managed care

Although Medicaid managed care has been in effect in parts of Indiana for almost two years, physicians still raise many questions about the program. The questions and concerns probably will increase this year, since on July 1 the 77 remaining counties join the 15 counties already participating in Hoosier Healthwise, as the managed care program is known.

The program has two components. Primary Care Case Management (PCCM) is the managed care program administered by the state of Indiana's Office of Medicaid Policy and Planning. The Risk Based Managed Care (RBMC) program is administered by two managed care organizations (MCOs), Healthsource Indiana and Maxicare. Healthsource Indiana covers all three regions of the state (northern, central and southern) through its program called CareWise. Maxicare, which covers the northern and southern regions, calls its Medicaid network MaxiHealth.

MaxiHealth has subcontracted to SIHO for the counties of Bartholomew, Brown, Clark, Crawford, Dearborn, Decatur, Floyd, Franklin, Harrison, Jackson, Jefferson, Jennings, Lawrence, Monroe, Ohio, Orange, Perry, Ripley, Scott, Switzerland and Washington. In northern Indiana, MaxiHealth has been subcontracted to Managed Health Services in the counties of Adams, Allen, Cass, DeKalb, Elkhart, Fulton, Huntington, Jasper, Kosciusko, LaGrange, Lake, LaPorte, Marshall, Miami, Newton, Noble, Porter, Pulaski, St.

Joseph, Starke, Steuben, Wabash, Wells, White and Whitley.

To help physicians better understand the program, the ISMA practice management consultants have prepared a list of the most often asked questions and answers about Hoosier Healthwise.

Q. Who is eligible for Hoosier Healthwise?

A. The managed care programs are mandatory for all parents and children receiving cash assistance through Aid to Families with Dependent Children (AFDC) as well as non-AFDC pregnant women and children with incomes at or just above the poverty level (AFDC-related). Medicaid recipients not included in the managed care program are classified as wards of the court/foster care, blind/disabled, and the aged.

Q. Who can be a provider in the program?

A. A physician first must be a Medicaid provider. The physician also must sign a contract with one of the MCOs (managed care organizations) or an addendum to the Medicaid provider agreement.

Specialists must sign contracts with the MCOs to be in the RBMC delivery system. Specialists do not have additional contract requirements to be a part of the PCCM.

Q. Who can be a Primary Medical Provider (PMP)?

A. The PMP must be a physician in general practice, family practice, general pediatrics, general internal medicine or obstetrics/gynecology. Physicians enrolled in Medicaid as an internal

medicine/pediatrics specialist may enroll upon submitting documentation of their training in both internal medicine and pediatrics.

Healthsource and SIHO (the subcontractor for many southern Indiana counties) will allow a physician specializing in obstetrics/gynecology to participate as a specialist. SIHO will allow an obstetrician/gynecologist in a rural area to request a minimum of 50 patients.

Q. What are the responsibilities of the PMP?

A. The PMP agrees to be available to see patients a minimum of 20 hours per week, over at least three days at each practice. Clinics or group practices may fill this 20-hour, three-day-per-week requirement with more than one PMP.

The PMP must agree to accept a panel of not less than 150 nor more than 2,000 patients. The PMP cannot simply keep his or her current Medicaid patients, but must agree to accept at least 150 Hoosier Healthwise patients. There are no panel limits for specialists.

The PMP must be available by telephone 24 hours a day, seven days a week. Physicians may use a 24-hour telephone service that can be answered by the PMP, a designee such as an on-call physician, an answering service or a pager system. The PMP or another physician must be available to provide medically necessary services. The covering physician must be a Medicaid provider; however, this physician does not need to be a PMP.

The PMP is responsible for providing or authorizing most primary and preventive care services. These include but are not limited to:

- physician services;
- hospital inpatient and outpatient services; and
- ancillary services, including laboratory, radiology, orthotics, prosthetics, Early Periodic Screening Diagnosis and Treatment (EPSDT)/HealthWatch, audiology, durable medical equipment and supplies and home health services.

Another PMP responsibility is to submit non-reimbursable claims for missed appointments.

The PMP must adhere to universally accepted standards of preventive care for pregnant women, infants, children, adolescents and adults. Standards are written in the Hoosier Healthwise Provider Manual.

Q. Do I have to join Hoosier Healthwise?

A. No, you do not. You may continue to provide services to non-Hoosier Healthwise recipients. If you have a large number of patients who are AFDC or AFDC-related, you would not be able to continue to provide care for those patients. The program is mandatory for AFDC and AFDC-related recipients.

Q. When will a contract to join Hoosier Healthwise be presented?

A. Contracts can be signed anytime from now until July. You will probably be sent information in the mail or be asked to attend an educational meeting by Medicus (the company contracted by the OMPP to assist in implementing and administering Hoosier

Healthwise) or one or both of the managed care companies before July. The networks will be forming during the entire year.

If you decide you definitely want to participate, the earlier the contracts are signed, the quicker you will be on the participating provider list. Your patients can choose you as their physician. If you wait to join, then your current patients could be auto-assigned to another physician because you are not part of the program when the patient must make the decision.

Andrew Johnston, president of Managed Health Services Indiana, offers the following suggestion to physicians: "My strong recommendation to all providers in third-year counties is to select some organization to work with, either PCCM, MaxiHealth or CareWise, and try to get your patients voluntarily enrolled before the program becomes mandatory. The initial auto-assign process does not consider the physician-patient relationship and interrupts continuity of care, and it is burdensome to obtain modifications of assignments."

Q. If a physician does not sign a contract, what happens to his or her Medicaid patients?

A. If the physician is in primary care, his or her AFDC and AFDC-related Medicaid patients are assigned to other physicians in the program. This program does not affect the elderly or disabled.

Q. How are Medicaid patients assigned to a managed care network?

A. Patients choose a physician, thereby becoming members of the physician's network. The three plans (PCCM, MaxiHealth and

CareWise) are to be invisible to the patients.

Q. What if a physician does not sign up for any of the Hoosier Healthwise programs now but changes his or her mind in the future?

A. A physician may join the program at any time.

Q. Can a physician enroll in both PCCM and RBMC networks?

A. Yes, a primary care physician can enroll in both, but the process of accepting new patients is limited to one system of care at a time. In other words, PMPs participating in both PCCM and RBMC must designate under which system of care they wish to receive new patients, and this selection must be maintained for at least one calendar quarter. You may change systems effective on Jan. 1, April 1, July 1 or Oct. 1. Realistically, to change networks, you should plan to give 45 days' notice. If this is the first time you have contracted with the MCO, the contract must be in place and the process can take from 30 to 45 days. Notification is sent to the MCO on an open enrollment change form. It is possible to change every quarter, but not encouraged.

Specialists may participate in both PCCM and RBMC at the same time.

Q. What can a patient do if he is assigned to one physician but prefers to see another physician?

A. Recipients can call the Hoosier Healthwise Hotline and request a change in physicians. The process should take no more

than 45 days. Recipients can change PMPs once every six months, but they are encouraged to first discuss these reasons with their current PMP.

Q. Can a physician ever disenroll?

A. The participation contract is a binding agreement. To disenroll from Hoosier Healthwise, the physician should submit written notification for disenrollment, documenting the reasons prompting this decision. All requests concerning disenrollment from the RBMC system should be forwarded to the appropriate MCO. Requests to disenroll from the PCCM system should be sent to the Hoosier Healthwise program. The panel is put on hold while the request is reviewed. If the request is approved, the OMPP or the MCO will contact the PMP to initiate the disenrollment process. The physician must continue to act as the PMP for assigned patients for up to 45 days following disenrollment approval or until patients assigned to the physician choose a new PMP.

Q. What type of restrictions does the RBMC have?

A. Both Healthsource and Maxicare operate their companies along the guidelines of their regular managed care contracts. This places limitations on referrals and where the patient may go for prescriptions, laboratory services and hospitals.

Q. What are the fee schedules for PCCM and RBMC?

A. PCCM claims are paid based upon the Medicaid fee schedule. The PMP also receives a \$3-per-patient month for care

management services. This is automatically sent to the PMP. The specialist receives fee for service.

The MCOs will negotiate a fee schedule for participating providers. The fee schedule range will be anywhere from fee for service to fully capitated. At this time, the usual contract will be written with very little risk for the physician.

CareWise is introducing some new pricing methodology. The PMP can choose one of two payment methodologies:

- the Medicaid fee schedule plus \$3 per member per month; or
- a bonus system in which the PMP participates in a reward sharing program if certain criteria are met within a specified time frame.

CareWise pays specialists fee for service based upon the Medicaid RBRVS fee schedule. In an effort to get obstetrician/gynecologists to participate as a specialist instead of PMPs, a global fee for a pregnancy is paid.

MaxiHealth generally will pay a PMP not participating in EPSDT the Medicaid RBRVS at the date of service plus 2%. If the PMP participates in EPSDT, the fee schedule is RBRVS plus \$3 per member per month. Specialists receive Medicaid RBRVS at the date of service plus 1%. Maxicare will pay for out-of-network referrals to specialists.

SIHO/MaxiHealth reimburses the PMP either Medicaid RBRVS rates 2% if the physician does not do EPSDT or Medicaid RBRVS plus \$3 per member per month if EPSDT is done. Specialty care is reimbursed at the Medicaid RBRVS rate plus 1%.

MaxiHealth/Managed Health Services will negotiate a capitation rate with the primary care physi-

cian for the services they provide directly and for outpatient use of the emergency room. Payments are based on Medicaid eligibility categories, and children are paid based on age. If no capitation rate is negotiated, fees are paid to contracting providers on the basis of the Medicaid fee schedule plus 1%.

Q. How are physicians paid for emergency department services?

A. All programs will pay a triage or screening fee to the physician for federally required medical screening examinations performed in the hospital emergency department. One of the program goals is to educate patients that the emergency department is not the place to obtain regular or non-emergency medical treatment. RBMC companies are not required to pay a triage fee to out-of-network physicians for non-emergent care.

PCCM covers emergent care without referral. A list of diagnoses considered emergent is available. Urgent services require a referral by the PMP. Care for routine conditions in the emergency department will not be reimbursed.

CareWise requires the PMP to authorize non-life-threatening services provided in the emergency department. The authorization must be given before the emergency visit. Documentation for these emergency visits will be reviewed on a case-by-case basis.

MaxiHealth will pay for urgent and emergent care according to set protocols. All emergency claims must be submitted on paper and are manually reviewed. For non-urgent care, the PMP must be

contacted for authorization or the claim will be denied.

SIHO/MaxiHealth requires the PMP to evaluate the severity of the patient's symptoms and triage the patient to the appropriate site for care, either the emergency department, next day appointment for non-urgent care or an urgent care center. After normal business hours, the SIHO Member Hotline will be staffed with a triage staff person to assist patients with seeking medically appropriate care.

MaxiHealth/Managed Health Services requires referrals except in cases where an agreement has been reached with a local hospital emergency department to provide primary care call coverage for a physician without prior authorization at rates that have been approved by MHS as comparable to the cost of providing care in the primary care physician's office. Where authorization is required, the physician may call an 800 number and make the authoriza-

tion over the phone without having to complete the referral form. A referral form will be generated by MHS and forwarded to the PMP's office for verification.

Q. Will electronic filing of claims be required under PCCM or RBMC?

A. No, claims do not have to be filed electronically. The MCOs do not accept electronic claims at this time.

Q. If a physician enrolls in both a PCCM and an RBMC program, do charges have to be filed with both networks?

A. Yes, claims must be filed with the individual company.

Q. What happens if the managed care companies become financially insolvent?

A. The RBMC companies were investigated for financial solvency before the letting of contracts. Every company offered a contract was found to be financially sound.

The contracts contain language that protect Medicaid physicians if the managed care companies should become insolvent.

Q. Who can I call for more information?

A. The Indiana State Medical Association practice management consultants are available to answer your questions. Call Meg Patton, Barbara Walker or Shelly Symmes at 1-800-257-4762 or (317) 261-2060.

You may also call the following sources:

- Hoosier Healthwise Hotline (PCCM): 1-800-889-9949.
- Healthsource (CareWise): 1-800-933-3466.
- Maxicare (MaxiHealth): southern region, 1-800-360-6294; northern region, 1-800-414-9475.
- SIHO/MaxiHealth: (812) 378-7000.
- MaxiHealth/Managed Health Services: (219) 756-7134 or 1-800-414-5946. □

Statewide medical education in Indiana

George T. Lukemeyer, M.D.
Glenn W. Irwin Jr., M.D.
Indianapolis

In the early 1960s, a newspaper reporter asked John D. VanNuys, M.D., dean of the Indiana University School of Medicine, why it was so difficult to recruit psychiatrists for positions in Indiana's mental health care institutions. Dr. VanNuys responded that Indiana's stringent medical licensure laws were restrictive, and Indiana, like the rest of the nation, suffered from a doctor shortage. There followed a decade of intense interest and activity throughout Indiana by multiple institutions and groups seeking to define the problem and to recommend solutions. All of this was played out against a background of the introduction of Medicare and Medicaid (1965-66) and the turmoil of the Vietnam War years (1965-74).

Indiana, like many other states, had a shortage of physicians complicated by an imbalance by specialty and geographic maldistribution. There was a general migration of physicians and professional and technical personnel from the Midwest. The state also ranked below the national average in numbers of dentists, nurses, lawyers and highly trained technical and engineering personnel. This highly publicized phenomenon was called the "Midwest Brain Drain."

Widespread concern about the "doctor shortage" spawned statewide interest in expanding the number of entering medical students as a strategy to address

the shortfall of physicians. Numerous institutions of higher education, professional societies and community organizations developed proposals for additional medical schools in Indiana. In February 1964, Indiana University, at the request of Gov. Matthew E. Welsh, arranged for the Booz Allen & Hamilton Management Consultant Firm of Chicago to conduct a study as to how Indiana could meet the future needs for:

- "Medical education - How an increasing number of young men and women who wish to enter the field of medicine can be provided with the professional education they require.
- Practicing physicians - How medical education programs within the state can help ensure that a sufficient number of physicians will be available to provide the medical care needed by Indiana's growing population."

The study, conducted in two phases, culminated in a report submitted to Gov. Welsh in December 1964. The future needs, criteria and alternatives set forth in the final report were felt to "reflect the thinking of state government, university, medical and community leaders." In the list of 11 criteria that should be met as medical programs are expanded in Indiana, the number one criterion was: "First priority should be given to preparing the present Indiana University School of Medicine to meet existing obligations and improve the quality of existing programs." The Booz Allen & Hamilton report recommended a four-phased plan to be carried out in Indiana. Phase I, to

be completed by 1968-69, called for "a substantial increase in state financial support to increase the faculty and facilities of the present School of Medicine and, with assistance from Indiana University, to improve and expand internships and residencies in community hospitals in Indiana. Also, it recommended that medical licensure laws be revised to facilitate entry of qualified physicians into Indiana from other states. During Phase I, Indiana University School of Medicine should reorganize internally to prepare for Phase II and strengthen the combined degree program in Bloomington."

Phase II, expected to last from 1968-69 to 1974-75, projected "that medical school enrollments in the state will need to about double in the next ten years and that Indiana will need to retain or attract about the same number of physicians that might be graduated from such expanded enrollments if it is only to maintain the present proportion of physicians to the population. There are many alternative approaches to meeting the needs for expansion of undergraduate medical education facilities in the state. The plan recommended in Phase II is to expand Indiana University School of Medicine on the present campus, but in smaller organization units. Such an approach would combine the opportunities and economics of a larger medical school with the effectiveness of a smaller school. In the second phase, therefore, enrollments would expand by about 50% under this new, but promising, approach to medical education and the needs of the

state. During this phase, considerable progress toward the development of a 'medical university' should be possible."

Phase III, 1974-75 to 1978-79, envisioned enrollments in medical school would double in Indiana to 400 entering students.

Phase IV, beginning sometime after 1980, anticipated a re-examination of needs, criteria and alternatives.

Booz Allen & Hamilton detailed six alternative means for meeting future needs for medical education in Indiana. The alternatives ranged from doing nothing to expanding the IU School of Medicine, to establishing another four-year medical school in Bloomington, Evansville, Fort Wayne, Lake

County, South Bend-Mishawaka-Elkhart, Ball State University, Indiana State University, Purdue University, University of Notre Dame and/or to one or more two-year basic science medical schools on selected campuses in Indiana. No further action on the Booz Allen & Hamilton report was forthcoming.

The faculty of the IU School of Medicine had elected not to accept a passive role in the innovation of medical education. It fully expected to be counted in the forefront of American schools interested in new and better methods of quality medical education. A committee appointed by Dr. VanNuys in 1962 and headed by John I. Nurnberger, M.D., began a study of the school's traditional "lockstep" curriculum and started the process to design a new

curriculum. In 1964, Dr. Nurnberger, acting dean of the IU School of Medicine, expanded the committee to a Clinical Council for Curricular Affairs with William P. Deiss, M.D., then professor of medicine and biochemistry, as chairman. The council's important studies were continued by successive expanded committees appointed by Dean Glenn W. Irwin Jr., M.D., until the entire medical school faculty was involved in some way. In 1966, Edward Tyler, M.D., became co-chairman with Dr. Deiss, and by January 1968, the initial major innovation, the

from the point of view of the state as a whole, for future medical education in Indiana. This 10-member committee of the faculty chaired by George T. Lukemeyer, M.D., made its report in June 1966. Several problems existed in the state. The number of doctors for every 100,000 people in Indiana was lower (97 per 100,000) than any neighboring state except Kentucky and substantially below the national average of 143 per 100,000. In 1965, Indiana had 2.5% of the U.S. population, and also had 2.5% of the nation's first-year medical students (216). In 1965,

Indiana's one medical school produced more graduates than the total number of internships in all of the hospitals in the state. Indiana

Indiana was a "brain-drain" state in which only 51% of the doctors educated in Indiana stayed to practice in the state.

"Introduction to Medicine" course was presented for the first time in the new and evolving curriculum. Statewide clinical electives were arranged and offered to fourth year students in 1969. Projections called for full implementation in 1971 of the 1966 faculty-approved "Ultimate Curriculum."

During the 1965 session of the Indiana General Assembly, Senate Bill 336 proposed an act to establish a college of medicine with a department of community medicine and family practice at what was then called Ball State Teacher's College. It was not enacted.

In May 1965, Dr. Irwin, dean of the IU School of Medicine, appointed a committee of the medical school faculty to coordinate the various studies relating to developing the best possible plan,

was a "brain-drain" state in which only 51% of the doctors educated in Indiana stayed to practice in the state. The one school of medicine was considerably underfunded. There were too few directors of medical education in Indiana hospitals. Indiana's licensure laws were restrictive and discouraged qualified physicians from coming to Indiana.

In the years preceding the 1966 Lukemeyer Committee Report, the IU School of Medicine had taken several steps to help alleviate the doctor shortage. The number of medical students accepted and graduated had been increased rapidly. (There were 150 matriculants in 1950, 202 in 1964 and 216 in 1966.) This rate of increase of freshman medical student enrollment at the IU School of Medicine far exceeded the rate for the rest of

the nation and was much greater than the rate of population increase in the state from 1950 to 1966. Further, a rapid expansion of the residency and fellowship training program at the IU Medical Center was in progress. From 67 residents at the IU Medical Center in 1950, there were nearly 300 in 1966. Allied Health Science training programs had been continuously increased. The innovative combined degree (M.D.-Ph.D.) medical education program was initiated by the medical school on the Bloomington campus in 1959.

The 1966 Lukemeyer Committee Report made several recommendations. First, the IU School of Medicine needed adequate support. Graduate (internship and residency) medical education needed to be expanded to the community hospitals throughout the state. There needed to be a statewide communications network using telephone, television and computer linkage connecting participating colleges and universities, cooperating community hospitals and the IU Medical Center. The committee endorsed the new and evolving curriculum for the medical school, which presented a core of preclinical education in a single first year. The second year included a new introduction to clinical medicine transitional course, and the third year advanced education in both basic and clinical sciences. The fourth year was envisioned as an elective year with many opportunities for senior clinical experiences in community hospitals throughout Indiana. The school of medicine should give appropriate academic titles to full-time directors of medical education through-

out the state as well as help fund these positions.

Partial funding of internship and residency programs from the state via the medical school should be accomplished. Expansion of the medical library via a statewide electronic link-up with participating institutions and physicians should be developed. The first part of the core curriculum, the basic science year, could be taken at any university or college with strong basic science departments that were organized, staffed and equipped to do the work. Such a model had existed on the Bloomington campus since 1959.

This Indiana University plan could be quickly implemented and would directly approach the problem of the physician brain drain in the state. It would also be much less expensive than building a new four-year medical school and teaching hospital. The new curriculum would permit a future increase in entering students at other universities in the state. By increasing and filling good and attractive internship and residency programs, the state would retain more doctors.

This then was the Indiana plan as presented in April 1966 to the Subcommittee to Study Medical Education of the Legislative Advisory Commission of the 94th Indiana General Assembly. The proposal was met with the usual amount of skepticism, derision and, in some instances, open hostility. The plan had not been concocted as a revolutionary approach to medical education in Indiana. It resulted from a very fortunate set of geographic, demographic and educational circumstances.

The 1967 General Assembly

presented real challenges to Dean Irwin and Claude Rich, Indiana University legislative liaison, as the Indiana University Plan for Statewide Medical Education moved through the 61-day legislative process. There was another movement by presidents and directors of medical education in the larger hospitals throughout the state to obtain state support for the financing of internship-residency programs. The cost of medical education conducted by private hospitals was a source of increasing apprehension.

The following year, 1967, the Indiana General Assembly enacted unanimously Senate Enrolled Act 359 into law. This unique law emphasized the state's desire and willingness to support medical education in Indiana and included some of the elements of the Indiana University plan. The introduction to the law reads as follows: "An act providing for the establishment of a regional, hospital affiliated, internship-residency program and development of an expanded continuing medical education program; and making an appropriation therefore."

The legislation included two sections. The first made a \$1 million appropriation to support the internship/residency programs throughout the state. A Medical Education Board of five members was established, with the dean of the IU School of Medicine as chairman. This board was authorized to establish policies for the use of expenditures for the internship/residency programs but was not to establish or recommend policies of teaching or education by the medical school. The Medical Education Board

established policies regarding the funding of stipend supplements for interns and residents throughout Indiana.

A second portion of the law appropriated \$1.5 million dollars to be used by the IU School of Medicine for the appointment and funding of statewide off-campus faculty members, mostly at the community level, and for operating and purchasing equipment for a statewide communications system including library and computer facilities. A grant-in-aid program for community hospitals contributed to the support of off-campus

directors of medical education, volunteer faculty members and the graduate medical education and continuing medical education programs in the hospitals.

This Phase I of a statewide medical education system was effective immediately. In 1967, just prior to the initiation of the program, there were 428 interns and residents in Indiana, and the vast majority were located only in two cities, Indianapolis and South Bend. Ten years later, there were 865 residents in nine Indiana cities with 27 participating hospitals. The percentage of IU School of Medicine graduates taking intern-resident training in the state increased dramatically, and the number of practicing physicians in Indiana rose steadily.

An important second phase of the Indiana program began in 1968 when it became obvious that even greater numbers of entering medical students were needed,

even though the IU School of Medicine had continued its increase in enrollments. By 1967 there were 221 entering students at the IU School of Medicine. In September 1968, the medical school, in cooperation with Purdue and Notre Dame universities, embarked upon pilot programs for the teaching of basic medical sciences to a limited number of medical students in Lafayette and South Bend. Entering medical students in 1968 could be found at Indiana University in Bloomington, IU School of Medicine in Indianapolis, Purdue

sion on Post High School Education established by the 1967 Indiana General Assembly. This commission, chaired by Richard D. Stoner, made its report to Gov. Roger D. Branigan in December 1968. The commission made 17 recommendations, including the establishment of a statewide planning and coordinating board of regents. The proposed board of regents should establish and appoint an advisory council on education for the health professions. The commission recommended the continuation of the new IU Statewide Internship-Residency Program until evaluated by the proposed advisory council. The section of this report on the education for the health professions again cited the

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University in Lafayette and the University of Notre Dame in South Bend. The medical school had had considerable experience in this area because in 1959 a medical education program was established at Indiana University in Bloomington that offered the basic medical sciences to undergraduate, medical and graduate students. The Bloomington program proved that basic medical sciences could be provided at a strong university that had good divisions of biological and physical sciences, even though that institution did not have a traditional four-year medical school on its campus.

Another study of medical education in Indiana was undertaken by the State Policy Commis-

shortage of physicians in the state. Indiana ranked 35th in the number of physicians per population among the 50 states. Although the IU School of Medicine was the largest school in enrollment in the United States (221 entering students in 1967-68), Indiana ranked 21st in the number of medical students per 100,000 population. The Stoner Commission Report reaffirmed the deficiencies in the number and quality of internship opportunities in the state. It documented that a significant number of the available residency positions in Indiana were unfilled. It emphasized again that the decision for the location of practice of a physician is largely dependent upon where he/she interns or does

a residency rather than where one graduates from medical school. This report considered the new statewide internship-residency program in Indiana a truly significant development.

The Stoner Commission Report concluded that expansion of medical student education in Indiana was urgent. Four possible alternatives that were considered included:

1. Further expansion of the IU Medical Center;
2. The establishment of a two-year medical school;
3. The establishment of a new four-year medical school; and
4. Integration of senior universities in a statewide system of medical education.

The final decision regarding expansion of medical education was to be the responsibility of the proposed board of regents assisted by the proposed advisory council on education for the health professions.

Beurt SerVaas, a member of the Stoner Commission, prepared an appendix to the report. He proposed an integration of senior universities in a statewide system of medical education. This proposal was similar to the Indiana University Plan for Future Medical Education in Indiana, which was announced in 1966 and had partially been tested when first-year medical students were admitted to Purdue University in Lafayette and to Notre Dame for the 1968-69 year.

Creation of the Commission on Medical Education

By executive order on June 12, 1969, Gov. Edgar D. Whitcomb established a Commission on Medical Education and charged

the commission to devise and implement a system of statewide medical education that could immediately and effectively increase the number of physicians in training while at the same time maintaining medicine's high academic standards.

The governor's commission was composed of 32 members, approximately one-third of whom were M.D.s, with the majority representing the lay consumer of medical services, representative legislators from both political parties, the academic vice presidents of Indiana's major universities, scientists, educators, hospital administrators and businessmen, together with the dean of the IU School of Medicine and the presidents of the junior and senior classes of the medical school.

Under the chairmanship of Indianapolis businessman Beurt R. SerVaas, the commission considered a number of proposed plans to meet the need for new physicians. On Feb. 11, 1970, the commission adopted a resolution for a Statewide Medical Education Program. The resolution, in summary, stated that the IU medical school had expanded its enrollment to meet the need for more physicians in the state but finds it difficult to satisfy the ever-increasing demand for qualified persons to deliver health care services. The building of a traditional second medical school would require a delay of approximately 10 years before increasing the number of graduating physicians, would cost an amount exceeding the current financial capabilities of the state and would materially benefit only one limited area of the state.

The resolution adopted a

"Seven Center Plan," creating medical education centers in the communities of Lake County, South Bend, Fort Wayne, Muncie, Lafayette, Terre Haute and Evansville for the year 1970-71. The administration of the IU School of Medicine was invested with the responsibility and authority for planning and implementing an orderly expansion program. Joint faculty appointments by the IU School of Medicine and other institutions of higher education should be made. The medical school would provide admission procedures, curricular development and accreditation. The establishment of a system of evaluation must be made to ensure continuing quality of the educational program.

The commission's resolution recognized that the acute needs for augmented physical facilities and additional faculty at the IU Medical Center in Indianapolis must simultaneously be met to ensure the continuing high quality of education to the increased number of students for the health care professions under this plan.

After the Commission on Medical Education adopted its resolution in February 1970, a series of well-planned meetings were scheduled in each of the seven communities where medical education centers were to be located. The following people attended and presented the case of the Indiana Statewide Medical Education Program: Gov. Edgar D. Whitcomb; Beurt R. SerVaas, chairman of the commission; Dr. Irwin, dean of the IU School of Medicine; and Steven C. Beering, M.D., associate dean. The following representatives attended the meetings in their communities: the

mayor, state legislators, commission members, media, university officials, health professionals and civic leaders. The meetings were well-attended and stimulated much good two-way discussion. Throughout the state, the plan seemed to have strong support.

The Indiana Statewide Medical Education system established by 1971 Indiana General Assembly

House Enrolled Act 1430 was overwhelmingly approved by the legislature in 1971. It endorsed the resolution of the Commission on Medical Education in which the administration of the IU School of Medicine shall be responsible for planning and implementing the orderly development and expansion of a medical education program in each center in cooperation with the director and staff of the cooperating institutions. \$1,750,000 was authorized for the 1971-72 academic year to begin the program. By June 30, 1971, a director had been recruited for each of the seven centers for medical education.

Implementation of the Indiana Statewide Medical Education system began immediately after the 1971 legislative approval. Dr. Beering, associate dean, coordinated the overall implementation of the system. Dr. Lukemeyer, executive associate dean, supervised the programs of the Medical Educational Resources Program, the Indiana Higher Education Telecommunication System and the expansion of services by the medical school library. That year, the number of entering medical students was increased to 273. In 1972, 290 students were admitted, and all centers were assigned

medical students, except Fort Wayne, which had elected to be a clinical program initially. In 1973, 305 students were admitted, and each center, except Fort Wayne, had 20 entering medical students. The Fort Wayne Center enrolled its first class of entering medical students in 1981. Total entering enrollment in the statewide medical educational program remained at 305 until 1982 and then was gradually decreased to 265 in 1986. The entering class size was again increased in 1992 to its current 280 students. By 1982, all centers had developed programs for second-year students.

In the three decades since the start of Phase I of the Indiana plan, the total number of interns and residents in Indiana hospitals increased from 428 in 1967 to 1,276 in 1995. Family practice residents in Indiana hospitals increased from 175 in 1977 to 258 in 1995. Fifteen hospitals in seven cities now conduct educational programs in the statewide residency program.

As we celebrate the 25th anniversary of the unique IU School of Medicine Statewide Medical Education program, some interesting statistics emerge. In 1970 there were 5,274 nonfederal physicians in Indiana for a 102-per-100,000 population ratio. In 1995, there were approximately 10,430 nonfederal physicians in Indiana, for a ratio of 190-per-100,000 population. In this 25-year period of the Indiana Statewide System of Medical Education, the number of physicians in Indiana has essentially doubled (98%). The population of the state, during the same period of time, has increased by approximately 8%.

Another important feature of

the statewide system is the active participation of part-paid and volunteer faculty physicians throughout Indiana. In the 1994-95 academic year, the statewide system faculty included 956 full-time, 69 part-time and 1,896 volunteer members. This means more than 25% of Indiana physicians are teaching medical students and/or residents and colleagues in a remarkable decentralized program involving undergraduate, graduate and continuing medical education.

Council to study the future of the IU System of Statewide Medical Education

The 1991-93 IU School of Medicine budget was reduced drastically, and a \$7 million deficit existed during the biennium for the Statewide System on Medical Education. As a last resort, consolidating or closing one or more of the seven centers was discussed. The seven center communities' reactions to this proposal were such that the Indiana legislature forbade closing any of the centers during 1991-92. Also, the General Assembly asked the IU School of Medicine to submit a report to the state budget committee by Nov. 1, 1991, covering the future of the Indiana Statewide System of Medical Education. To help prepare the response to the General Assembly's request, IU Vice President Gerald L. Bepko and Walter J. Daly, M.D., dean of the medical school, appointed a council with broad representation to conduct a study of the statewide medical education system. Geoffrey Segar, an Indianapolis attorney, chaired the council.

Members of the council heard testimony by appropriate groups

in support of each of the seven centers plus the medical sciences program at Bloomington. All of the communities agreed that the centers provided the following important contributions:

1. Attraction of physicians to the community;
2. Retention of physicians and improved quality of care;
3. Enhancement of the host institutions' programs; and
4. Favorable economic impact on the regions.

The report of the council concluded that the Indiana University Statewide Medical Education System has been shown to be fundamental to the health and prosperity of the people of the state. It has contributed to a doubling of the number of physicians in the state and partially redressing the geographic maldistribution of primary care physicians in the state. Both now, and in the foreseeable future, the health care delivery system will account for a significant portion of the expenditures affecting the

economy and stability of the regions. The most important ingredient will be the adequate supply of well-trained physicians needed for the prevention and treatment of disease and care for an ever-widening range of health disorders. The centers are a vital part of the system and contributed effectively to the progress that has been documented. Testimony from the communities in which the centers are located underscore their importance to the region and the commitment of their leadership to assist in raising local support for capital expenses and urging their legislators to seek additional state appropriations.

The council unanimously recommended that all Indiana University Centers for Medical Education be continued and enhanced and that a primary care network be developed to attract resident physicians to primary care. The council urged the General Assembly to increase the level of funding for this important program.

With the introduction of the Indiana Statewide Medical Education Program, the traditional concept of an academic medical center as a discrete and isolated geographic entity was discarded. Indiana's statewide decentralized program, under the direction of the IU School of Medicine and in cooperation with other institutions of higher education, community hospitals and practicing physicians, made an immediate and lasting beneficial impact on the state's medical workforce and opportunities for participation in a continuum of high quality medical education programs embracing undergraduate, graduate and continuing medical education. □

Dr. Lukemeyer is professor emeritus, Indiana University School of Medicine, and chairman of the editorial board of Indiana Medicine. Dr. Irwin is dean emeritus, Indiana University School of Medicine.

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Beware of retirement plan excise taxes

Joel M. Blau, CFP
Chicago

Use caution when taking retirement distributions from your tax qualified plans. The Tax Reform Act of 1986 established a 15% excise tax on withdrawals from retirement plans that exceed certain limits. To determine if you are affected, you must include the total value of all distributions from qualified pension and profit sharing plans, Keoghs, 403(b) tax sheltered annuities and IRAs. After tax employee contributions are not included in the calculation.

Generally, the 15% excise tax will apply to yearly distributions in excess of \$155,000 for 1996. This figure can increase in the future as it is indexed for inflation. If you were to take a lump sum distribution, the excise tax will be on the amount in excess of five times the annual limit of \$155,000 or \$775,000. Keep in mind that the lump sum excise tax applies only to a taxable distribution, not to a qualified rollover. With a rollover, you actually transfer your qualified plan, typically at retirement or

termination of employment, to an IRA. In this case, the excise tax will only apply when you begin taking taxable distributions from the IRA.

What makes matters more confusing is that some taxpayers used an irrevocable grandfather election on their 1987 or 1988 tax return. These individuals had accrued qualified retirement benefits in excess of \$562,500 as of Aug. 1, 1986. The election allowed for a grandfathering of those benefits at the time and caused the portion of any distribution attributable to such accrued benefits to be exempt from the 15% excise tax.

A seemingly logical method of avoiding the excise tax altogether would be to simply limit your annual retirement distributions to the threshold amount. At death, your remaining balance would be distributed to your intended heirs. Unfortunately, the government was not about to allow taxpayers this generation skipping opportunity. If an individual dies before receiving his entire retirement benefit, an "excess retirement accumulation" tax may be imposed on that portion deemed to be excessive. To determine the

amount to which the excise tax is imposed, a calculation is made. The 15% added tax is computed by taking the current value of all qualified retirement plans and subtracting the present value of an annuity payable for the life expectancy of the individual immediately before his or her death. The annuity is based on annual \$155,000 payments or the applicable annual figure if the grandfather election was made. To make matters worse, the excise tax at death is in addition to the federal estate tax, which has a top tax rate of 55%.

If the value of your retirement plan subjects you to the 15% excess distribution or accumulation excise tax, proper planning is needed. The use of various strategic estate and retirement planning techniques can help you minimize the effect of the excise tax over your lifetime, as well as at death. □

The author is president of MEDICUS Asset Advisors, Inc., an associate of AMA Investment Advisors, L.P. He welcomes readers' questions and can be reached at 1-800-883-8555.

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Response of bidimensionally measurable metastases to flutamide withdrawal in a patient with advanced prostate cancer

Gregory P. Warren, M.D.
Bruce J. Roth, M.D.

Androgen blockade is the primary therapeutic maneuver in patients with symptomatic, metastatic prostate cancer, and either surgical castration or the use of luteinizing hormone-releasing hormone (LHRH) agonists are felt to be equivalent in terms of response, time to progression and overall survival.¹ However, the data regarding the potential benefits of the addition of nonsteroidal antiandrogens such as flutamide (Eulexin[®]) or bicalutamide (Casodex[®]) to either bilateral orchiectomy or LHRH agonist are conflicting. While the most frequently cited study demonstrated a seven-month survival advantage for patients receiving combined androgen blockade,² a more recently published meta-analysis of 22 randomized trials involving over 5,700 patients failed to demonstrate any survival advantage for this approach.³ Regardless of the approach taken, the median time to progression in patients with advanced prostate cancer treated with primary hormonal therapy remains approximately 18 months, with a median survival in such "hormone-refractory" patients of 12 months. Due to the lack of efficacy of second-line hormonal therapy in hormone-refractory patients and the limited benefits seen with systemic chemotherapy, there are few treatment options

available in this clinical setting.

Despite their lack of proven efficacy, there is widespread use of the antiandrogens. A number of previous reports in the literature have documented serologic responses at the time of documented disease progression simply to the withdrawal of the antiandrogen, although only rarely have bidimensionally measurable lesions had documented regression. We describe below such a case and discuss the implications for this and similar cases on the interpretation of response to subsequent therapy, as well as its impact on clinical trial design.

Clinical case

The patient was a 70-year-old white man who was found on routine physical examination in October 1990 to have an asymmetrically enlarged prostate, and ultimately a transrectal biopsy revealed a moderately differentiated adenocarcinoma of the prostate. Staging workup included a normal bone scan and a normal abdominal/pelvic computerized tomographic (CT) scan. However, serologies were highly suggestive of extracapsular spread of the disease, with a serum prostate specific antigen (PSA) of 391 ng/mL (normal 0-4) and an enzymatic acid phosphatase of 11.1 ng/mL (normal 0-2). The patient was treated primarily with hormonal therapy beginning in December 1990, consisting of bilateral orchiectomy and flutamide at a standard dose of 250 mg orally

three times daily. Following the initiation of hormonal treatment, the patient's serum PSA reached a nadir of 1.0 ng/mL.

The patient did well, but in January 1993 he experienced a rise in his serum PSA to a level of 142 ng/mL, further rising by July 1993 to 662 ng/mL. He became symptomatic from his progressive disease at that time with a 15-pound weight loss, abdominal fullness, lower back pain and symptoms of bladder outlet obstruction and was referred to Indiana University Medical Center.

Restaging included an abdominal/pelvic CT scan that revealed right hydronephrosis, extensive retroperitoneal adenopathy, a 2 X 2 cm mass in the head of the pancreas, and a 7 X 8 X 6 cm prostatic mass with extension into the base of the bladder (Figure 1A). A chest CT scan also demonstrated metastatic disease, with large para-esophageal adenopathy (Figure 1B). Therapeutic maneuvers included a transurethral resection of the prostate for relief of obstructive symptoms and discontinuation of flutamide in preparation for entry onto a clinical trial of chemotherapy.

The patient was restaged four weeks after discontinuation of flutamide. A serum PSA had decreased from 662 to 100 ng/mL. A marked reduction in the size of both his intra-abdominal (Figure 2A) and chest (Figure 2B) metastases was noted on repeat CT scans, including complete resolu-

tion of the 5-cm paraesophageal mass. This radiographic and serologic response was accompanied by symptomatic improvement of abdominal and back pain. The patient's serum PSA continued to decline to its nadir of 10.3 ng/mL 11 weeks following discontinuation of flutamide.

The patient's serum PSA began to rise 14 weeks after discontinuation of flutamide (54 ng/mL) and was associated with a return of systemic symptoms. Repeat CT scans demonstrated a marked increase in the size of all bidimensionally measurable lesions, as well as the appearance of new hepatic metastases. Chemotherapy with estramustine phosphate and vinblastine was initiated, but the patient failed to respond and succumbed to the disease in February 1994.

Discussion

The treatment options available in the setting of hormone-refractory prostate cancer are limited at best. Second-line hormonal therapy has no effect on the natural history of the disease. Recent "advances" in chemotherapy such as suramin, estramustine phosphate + vinblastine, and mitoxantrone + prednisone have documented increased response rates utilizing surrogate endpoints such as a 50% decline in PSA, although no improvement in overall survival has been demonstrated with any of these regimens.

The "flutamide withdrawal syndrome" was originally described by Kelly and Scher^{4,5}, who reported that 29% of patients progressing on combined androgen blockade had at least a 50% reduction in serum PSA following discontinuation of flutamide. They also reported a single patient with bidimensionally measurable disease who had an objective



Figure 1A

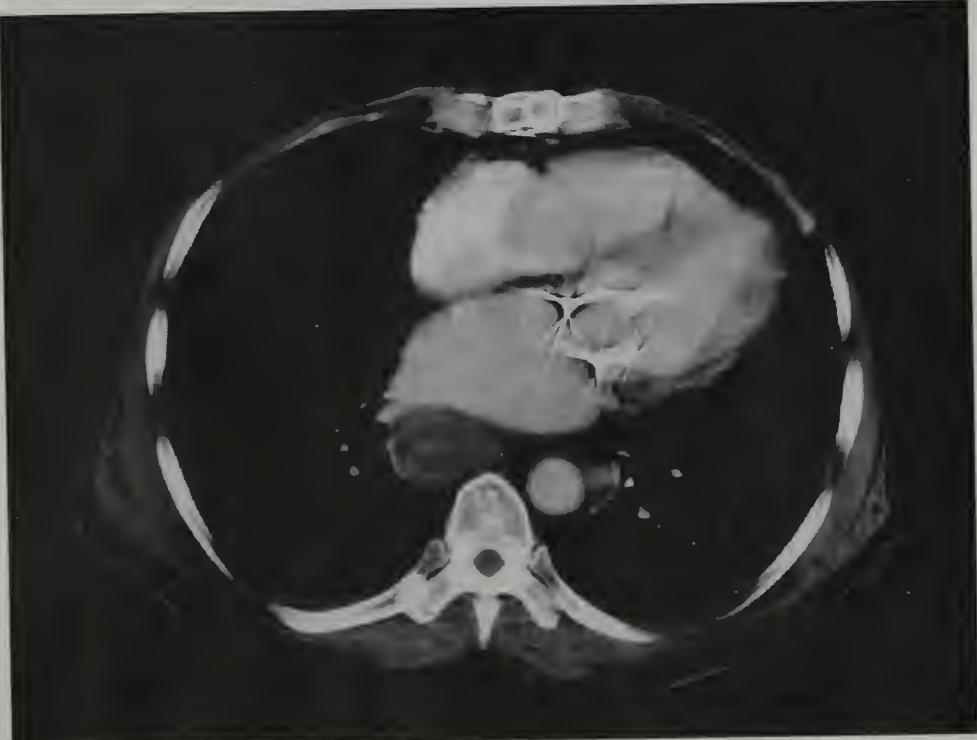


Figure 1B

Figure 1: Prior to flutamide withdrawal, demonstration of a 2 X 2 cm pancreatic mass and right hydronephrosis (1A) on abdominal CT scan, and a 5 cm paraesophageal soft tissue mass on chest CT scan (1 B).

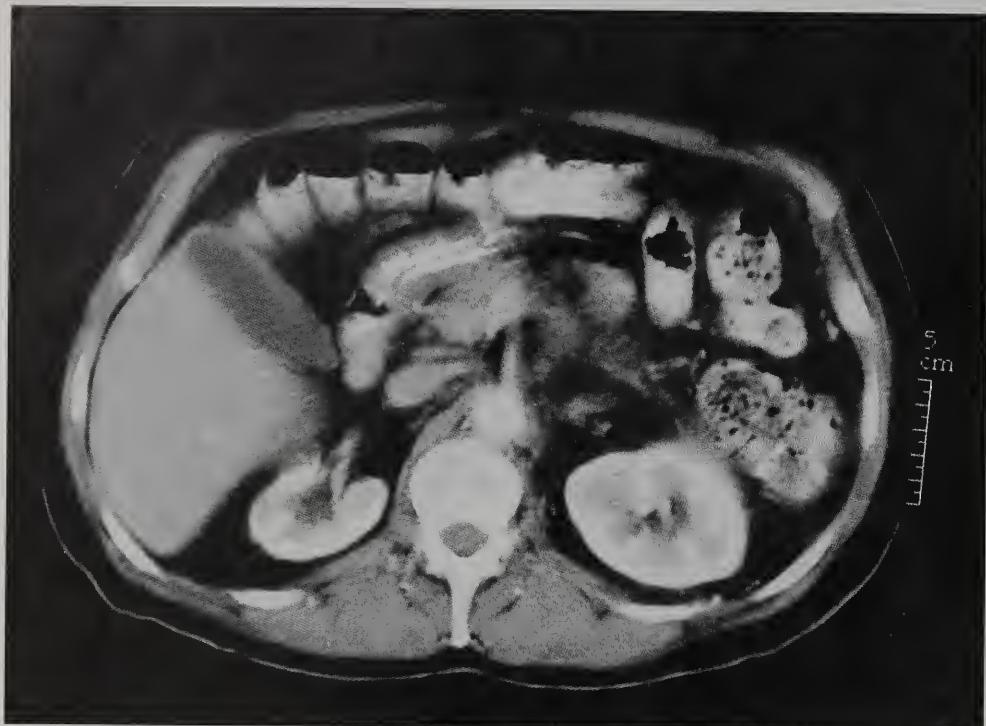


Figure 2A



Figure 2B

Figure 2: Four weeks after discontinuation of flutamide, demonstrating resolution of right hydronephrosis (2A) secondary to decreased retroperitoneal adenopathy (not pictured), and complete resolution of the para-esophageal soft tissue mass (2B).

(>50% decrease) response to this withdrawal. These responses were associated with improvement in clinical symptoms, but were short-lived, with a median duration of response of 5+ months. Other investigators have reported response rates of 48% to 63% to flutamide withdrawal.^{6,7} However, similar responses have been reported with the discontinuation of other agents with antiandrogen activity, including megestrol acetate,⁸ bicalutamide,^{9,10} or diethylstilbestrol,¹¹ and the syndrome is therefore more appropriately termed the "antiandrogen withdrawal syndrome."

The underlying pathophysiology that allows withdrawal of an antiandrogen to result in temporary tumor regressions in some patients with hormone-refractory prostate cancer remains undefined. There are a number of potential hypotheses, however, which parallel previous discussions of the potential mechanisms of tamoxifen withdrawal responses in breast cancer patients. One possibility is that tumor heterogeneity allows for a broad spectrum of sensitivity to circulating androgens. In such a system, low circulating levels of androgens could select for clones of tumor cells exquisitely sensitive to the growth-stimulatory effects of very low circulating levels of those androgens, and withdrawal of this stimulation might result in inhibition of the growth of those clones and a corresponding clinical response.¹²

A more likely explanation implicates a mutated androgen receptor for which antiandrogens binding results in a stimulatory response. Some clones of a human prostate cancer cell line (LNCaP) that demonstrate a single point mutation in the genetic sequence coding for the androgen receptor show increased binding of

progesterones and estradiol despite the lack of specific receptors for these agents.¹³ *In vitro* stimulation of prostate cancer cell growth by hydroxyflutamide has been demonstrated,^{14,15} and it is interesting to note that one human prostate cancer cell line that does not contain the androgen receptor does not exhibit growth stimulation by hydroxyflutamide.

Regardless of the mechanism, withdrawal of an antiandrogen represents a reasonable therapeutic maneuver in patients treated with combined androgen blockade who have developed evidence of progressive disease. Although such responses are generally short-lived, this maneuver must precede other therapeutic interventions. The simultaneous cessation of an antiandrogen and initiation of other systemic therapy may result in the misinterpretation of the observed response as attributed to the subsequent therapy. A number of investigators have suggested that a number of the responses attributed to either second-line hormonal therapy or chemotherapy in the published literature are in fact antiandrogen withdrawal responses. Because of this possibility, ongoing chemotherapy clinical trials in hormone-refractory patients require discontinuation of an antiandrogen for a fixed amount of time and/or the demonstration of progressive disease following

antiandrogen withdrawal. □

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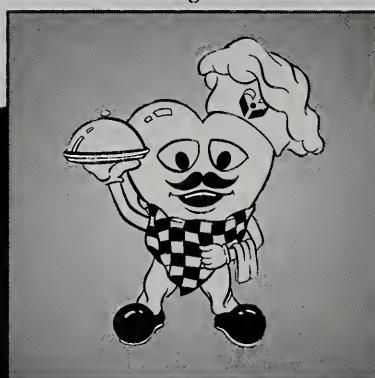
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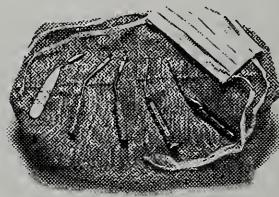


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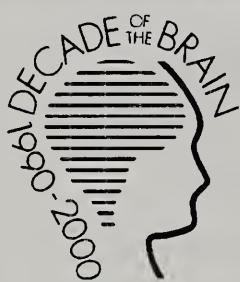
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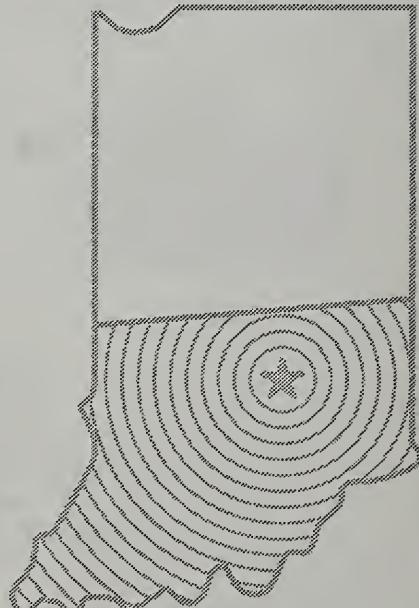
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Valerie Gates
ISMA Alliance president

The Alliance had a record number of members attend the Medicine Day activities held in January. Alliance members attended an early morning briefing on the status of current legislation. ISMA-A legislative chair, Shirley Becker, introduced Liz Kagan, AMA-Alliance legislative chair, who spoke on national issues affecting medicine and emphasized bills and proposals pertaining to violence in our lives.

Some of these issues include: The Children's Media Protection Act, which calls for a rating system, safe viewing hours and strict enforcement; sexual violence and prevention; and the 1995 Victims Rights Act, which would require HIV testing within 24 hours of an assault, would allow evidence from other crimes to be presented and seeks to standardize sentencing across the country; and the Violence Against Research Act.

In addition, information regarding educational meetings

was presented. These meetings include: medicine's candidate; a prescription for political success; AMA Leadership Conference and campaign school. The Alliance is encouraging all counties to assist in voter registration drives.

Indiana Alliance member Ann

Wrenn, AMA Alliance secretary, has been slated as the 1996-1997 AMA-A treasurer. This is an honor for Ann, and we wish her well.

Mark your calendars for the Alliance annual convention Oct. 17-19 held in conjunction with the ISMA annual convention. □

Former ISMA-A president named Sagamore of Wabash

Rod Ashley, ISMA-A president in 1990-1991, was named a Sagamore of the Wabash March 10 for his many contributions to the Marion community. He has supported many projects of the ISMA Alliance, the Marion Philharmonic Orchestra, the local Civic Theater and the Friends of the Arts. Rod was also honored for his devotion and expertise in the restoration of Hostess House, which is now on the *National Register of Historical Landmarks*. □



C. Rodney Ashley and spouse, Susan Rogers, M.D., pictured at the Hostess House, display The Sagamore of the Wabash Award.

■ from the museum

Museum exhibit features history of radiology

Oren S. Cooley
Indianapolis

Italian scientist Enrico Salvioni made the first important advancement in early x-ray technology when he invented the fluoroscope in January 1896. This development occurred shortly after Wilhelm Roentgen discovered x-ray in November 1895.

The early fluoroscope allowed physicians and other health care practitioners to view "live" x-ray images on a screen instead of the photographic images made on film by x-rays. Besides allowing a physician to directly observe anatomical features (such as the skeletal structure of the hand), the fluoroscope permitted the examination to occur in a lighted room rather than in the darkened chamber that the photographic images made by x-ray required.

Initially, the fluoroscope, originally called a cryptoscope by Salvioni, consisted of a tube-shaped device with an opening for the eyes at one end and a fluorescent screen at the other end. When x-rays were present, the screen would glow with the characteristic fluorescence. The viewer could see the dark shadow on the screen since an opaque surface existed between the screen and the accompanying x-ray tube.

The device did not leave a permanent shadow on the screen. Consequently, as soon as the generation of x-rays ceased, the fluorescence stopped and the screen became dark.

The same year that Salvioni invented the cryptoscope, American inventor Thomas Edison, an

x-ray enthusiast, created the Vitascope, a pyramid-shaped device similar in function to the cryptoscope. This pyramid-shaped device eventually became known as the fluoroscope.

To test the quality of the image, an early fluoroscope operator usually used one hand to hold the device and placed the other hand between the device's screen and the x-ray tube. Then, the operator adjusted the electrical current and voltage until an acceptable picture quality was achieved.

The long time required for the operator's eyes to adjust to the subdued light posed a hazard to the operator and, too often, caused burns to the face, degenerative skin changes in the hands and loss of hair, eyebrows and eyelashes. Eventually, the harmful effects led to lesions, amputations and,

ultimately, death.

By 1904, health care practitioners began to decrease their use of fluoroscopes because of the increasing realization of the hazards associated with the devices. In addition, the production of more powerful generators and the development of intensifying screens improved radiographic methods by providing better quality photographic images.

The current exhibit at the Indiana Medical History Museum focuses on the history of radiology. The museum, located at 3045 W. Vermont St., Indianapolis, is open from 10 a.m. to 4 p.m., Wednesday through Saturday. For more information, call the museum at (317) 635-7329. □

Oren Cooley is director of the Indiana Medical History Museum.



This fanciful illustration from a 1902 advertisement features a skeletal fluoroscopist demonstrating this x-ray unit's fluoroscopic accessories.



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cme calendar

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July 13 - Sixth Annual Symposium on Cardiovascular Preventive Medicine for Primary Care Physicians, Radisson Plaza & Suite Hotel, Indianapolis.

Sept. 7 - Practical Arrhythmia Management for the Primary Care Physician, Lafayette, Ind.

October - Treadmill Stress Testing, Northside Cardiology, Indianapolis.

Dec. 13 - 14th Annual Cardiology Update, Westin Hotel, Indianapolis.

For more information, call (317) 338-5050 or 1-800-732-1484.

Methodist Hospital

Methodist Hospital of Indiana will present the "Eighth Annual Dr. Patrick Dolan Lecture" June 14 at Methodist Hospital in Indianapolis.

Wilbur Smith, M.D., a professor and interim head of the department of radiology at the University of Iowa, will present "Understanding Bone Dysplasias," "Liver Imaging in Children" and a case presentation for residents.

For registration information, call Gonzalo Chua, M.D., or Wanda Giles at (317) 929-8250.

Nasser, Smith & Pinkerton

Nasser, Smith & Pinkerton Cardiology Inc. in Indianapolis will present these CME courses:

Aug. 23 - NSP Interventional Symposium, Westin Hotel, Indianapolis.

Sept. 25 - Income vs. Outcome, Ritz Charles, Carmel, Ind.

Oct. 4 - Richter Day, Westin Hotel, Indianapolis.

For more information, call Janet MacAbee, (317) 338-6089.

Indiana University

The Indiana University School of Medicine will present the following CME courses:

May 17 - New Horizons in Medicine.

June 6-7 - ASCO.

All courses will be presented at the University Place Conference Center and Hotel in Indianapolis. For more information, call (317) 274-8353.

Washington University

The Mallinckrodt Institute of Radiology and the Washington University School of Medicine will present "Practical Issues in Leading-Edge Radiology" Oct. 11-13 at The Frontenac Hilton in St. Louis.

The symposium will include discussions on helical CT, CT angiography, MR angiography and current neurointerventional techniques.

For registration information, call Linda Macker at (314) 362-2916.

University of Michigan

The University of Michigan Medical School will sponsor these CME courses:

July 11-14 - 22nd Annual Mackinac Island Course: Advances in the Management of Infectious Diseases, The Grand Hotel, Mackinac Island, Mich.

July 14-16 - 10th Annual Symposium on Breast Disease: Diagnostic Imaging and Current Management, The Grand Hotel, Mackinac Island, Mich.

July 18-21 - Gastroenterology for the Gastrointestinal Consultant, Shanty Creek Resort, Bellaire, Mich.

July 19-21 - Advances in Office Psychiatry: Mood and Anxiety Disorders, The Towsley Center, Ann Arbor, Mich.

July 27-28 - Endocrinology and Diabetes Update, Grand Traverse Resort, Grand Traverse Village, Mich.

Aug. 1-4 - Internal Medicine Update, The Grand Hotel, Mackinac Island, Mich.

To register, call Vivian Woods at (313) 763-1400. □



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news briefs

IU studies link between low estrogen and Alzheimer's

Indiana University Medical Center researchers are investigating estrogen replacement therapy as a treatment for women with Alzheimer's disease and are looking for study participants.

Research has shown that low estrogen levels in women may have negative effects on the brain and, as a result, may hasten onset of Alzheimer's disease.

Postmenopausal women age 60 and over who are diagnosed with mild to moderate Alzheimer's disease are needed for two national studies. Participants must have no history of cancer of the reproductive system, must not be on estrogen therapy and must be in stable general health.

Participants who qualify will receive gynecological, neurological and psychological examinations and EKG, blood and urine tests free of charge.

For more information, call Nicki Coleman, R.N., study coordinator, (317) 274-1351.

AHCPR offers health care information on Internet

The Agency for Health Care Policy and Research has launched its World Wide Web site - located at <http://www.ahcpr.gov/> - to help health care practitioners and consumers make informed health care decisions and to research what works best in health care.

Included are electronic versions of the 17 clinical practice guidelines AHCPR has supported and released thus far.

The major categories available

include Offices/Centers, News & Resources, Research Portfolio, Data & Methods, Guidelines & Medical Outcomes and Consumer Health. There is also an electronic catalog to the more than 450 information products generated by AHCPR.

Certification for disability evaluations offered

The American Board of Independent Medical Examiners has launched a national certification program to identify physicians with established credentials and expertise in the evaluation of disability and other physical impairment.

The national certification is designed to distinguish those physicians who are committed to professional excellence and integrity in disability evaluations, who demonstrate appropriate expertise in accordance with ABIME standards and who follow the organization's guidelines of conduct.

ABIME eligibility requirements for physicians include board certification in a recognized medical specialty or medical practice for the past 10 years, the fulfillment of continuing medical education requirements, proven competency through rigorous written examinations and adherence to the ABIME ethical code.

To receive information about ABIME or to order a copy of the 1996 ABIME National Directory, contact Kathy Sydlowski, ABIME, 55 W. Seegers Rd., Arlington Heights, IL 60005, (847) 640-9378.

IU seeks patients for research on strokes

Nine clinical trials are under way at the Indiana University Medical Center to study drugs that might lessen the damaging effects of stroke or prevent stroke patients from having additional strokes.

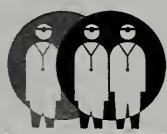
Some of the studies require that participants enroll within three hours after the onset of stroke symptoms, while others will accept enrollees within 48 hours after the onset of stroke symptoms. Studies of prevention methods will accept patients up to three months after their initial onset of symptoms.

Physicians may refer their patients to the study or patients may enroll on their own. For more information, call (317) 278-0270.

NIH offers report on cochlear implants

A National Institutes of Health (NIH) consensus development statement on cochlear implants in adults and children may be obtained from the NIH Office of Medical Applications of Research. The report was prepared by a panel of experts who considered scientific evidence presented at a Consensus Development Conference at NIH. It contains recommendations and conclusions about cochlear implants.

Free single copies of the consensus statement on cochlear implants in adults and children may be obtained from NIH Consensus Program Information Service, P.O. Box 2577, Kensington, MD 20891, 1-800-644-6627. □



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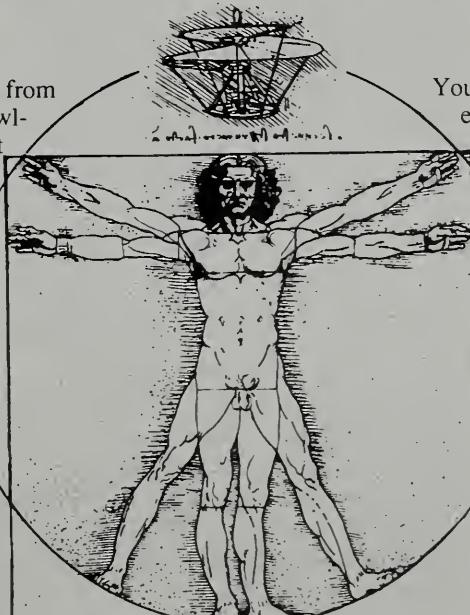
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Harry G. Becker, M.D.

Dr. Becker, 90, a retired Indianapolis surgeon and Army colonel, died Jan. 19, 1996.

He was a 1933 graduate of the University of Illinois College of Medicine. Dr. Becker joined the Army Reserve after serving in World War II. He became commander of the Army Reserve 337th General Hospital at Fort Benjamin Harrison in Indianapolis in 1952 and retired as a colonel in 1965.

Dr. Becker served on the staffs of Methodist, Winona, St. Vincent's, Community and Wishard Memorial hospitals. He was a diplomate of the American Board of Surgeons and a fellow of the American College of Surgeons. He had been an industrial physician for Allison Transmission Division of General Motors Corp. and served as associate professor in surgery four years for the Indiana University School of Medicine.

Myron Berkson, M.D.

Dr. Berkson, 73, a Michigan City psychiatrist, died Feb. 4, 1996, at St. Anthony Hospital in Michigan City.

He was a 1952 graduate of the University of Illinois College of Medicine.

Dr. Berkson was a charter member of the Northern Indiana Psychiatric Society and a member of the American Psychiatric Association.

Louis C. Bixler, M.D.

Dr. Bixler, 89, a retired South Bend radiologist, died Jan. 10, 1996, at his home.

He was a graduate of the Indiana University School of

Medicine and a U.S. Army veteran of World War II.

Dr. Bixler was affiliated with Radiology Inc. at Memorial Hospital. He was a past president of the St. Joseph County Medical Society and the Indiana Roentgen Society and a fellow of the American College of Radiology.

William W. Drummy Jr., M.D.

Dr. Drummy, 73, a retired Terre Haute internist, died Feb. 16, 1996.

He was a 1948 graduate of Harvard Medical School. He was an Air Force flight surgeon and served as chief of medical service at McDill Air Force Base Hospital in Tampa, Fla., and as chief of medical professional services at Ladd Air Force Base hospital in Fairbanks, Alaska.

Dr. Drummy had practiced in Terre Haute since 1957. He was the chairman and co-founder of the original coronary care unit at St. Anthony's Hospital, where he also helped start the first respiratory care unit in Terre Haute. He had been an associate professor of medicine and community health services at the Indiana University School of Medicine and a clinical instructor of medicine and head of cardiology teaching at the Indiana State University Division of the IU School of Medicine. Dr. Drummy was the former director of the Vigo County Tuberculosis Clinic, the past president of the Owen County Board of Health and former medical director of the student health department at ISU. He had served as chairman of the department of medicine at Terre Haute Regional Hospital.

David C. Gastineau, M.D.

Dr. Gastineau, 71, a retired Fort Wayne radiation oncologist, died Jan. 16, 1995.

He was a 1947 graduate of the Indiana University School of Medicine.

Dr. Gastineau was a founding member of the American Society of Therapeutic Radiology and helped establish the Parkview Oncology Center in Fort Wayne.

Chester J. Kmak, M.D.

Dr. Kmak, 65, formerly of Munster, died March 8, 1996, in Marco Island, Fla., where he had lived for 1 1/2 years.

He was a 1956 graduate of the Indiana University School of Medicine.

Dr. Kmak was an obstetrician and gynecologist.

Robert W. Kohne, M.D.

Dr. Kohne, 71, a Lafayette family practice physician, died March 1, 1996.

He was a 1953 graduate of the Indiana University School of Medicine. While serving with the U.S. Navy during World War II, he was detached to a British intelligence unit, working with the French underground. He received the French Legion of Honor from Gen. Charles de Gaulle and later the French Legion of Merit from President de Gaulle. He served in the South Pacific aboard a ship with the Marine Corps and the U.S. Navy. For his service, he received two personal presidential commendations.

Dr. Kohne had a practice in Lafayette and was Lafayette health officer for 23 years and city police surgeon for 25 years. He was on

■ obituaries

the staffs of St. Elizabeth and Home hospitals for 41 years. He was a life member of the American Academy of Family Physicians. In 1991, he was named a Sagamore of the Wabash by Gov. Evan Bayh.

Everett E. Mason, M.D.

Dr. Mason, 84, an Evansville family practice physician, died Feb. 20, 1996, at his home.

He was a 1936 graduate of the Indiana University School of Medicine. During World War II, he was a colonel and commander of the 58th Medical Battalion serving in North Africa and Europe.

Dr. Mason was a family physician and surgeon for 55 years.

Jack McKittrick, M.D.

Dr. McKittrick, 83, a Washington, Ind., family practice physician, died Feb. 27, 1996, at Carmel (Ind.) Care Center.

He was a 1936 graduate of the Indiana University School of Medicine. He was a flight surgeon during World War II, stationed in England with the Eighth Air Force's 95th Bomb Group, which earned three Presidential Citations.

Dr. McKittrick was in practice for 45 years, retiring in 1982. He was a member of the American Legion and a former member of the board of directors of Washington National Bank.

Felix Millan, M.D.

Dr. Millan, 67, a physical medicine and rehabilitation physician in East Chicago, died March 7, 1996, at his home in Munster.

He was a 1954 graduate of Facultad de Medicina Universidad Nacional Autonoma in Mexico.

Dr. Millan had practiced in East Chicago since 1975. He was on the staffs of Munster Community Hospital, St. Catherine Hospital and Our Lady of Mercy Hospital. He was a fellow of the Royal Society of Health in London and a fellow of the American College of Legal Medicine.

Perry F. Seal, M.D.

Dr. Seal, 80, a retired Brookville family physician, died Jan. 24, 1996, at Margaret Mary Community Hospital in Batesville.

He was a 1942 graduate of the University of Cincinnati College of Medicine and an Army veteran of World War II.

Dr. Seal opened his practice in Brookville in 1946 and retired in 1993. He was the Franklin County Board of Health officer for 35 years and was the athletic program physician for the Brookville and Franklin County high schools for more than 40 years. He was a member of the American Academy of Family Physicians.

Henry A. Staunton, M.D.

Dr. Staunton, 81, a retired South Bend family physician, died Oct. 7, 1995.

He was a 1940 graduate of the St. Louis University School of Medicine.

Dr. Staunton, who retired in 1990, had been on the staffs at St. Joseph Medical Center and Memorial Hospital in South Bend and St. Joseph Hospital in Mishawaka. He was a member of the American Academy of Family Physicians.

Roland B. Wilson, M.D.

Dr. Wilson, 84, a retired Fort Wayne family physician, died Jan. 28, 1996, at St. Joseph Medical Center.

He was a 1944 graduate of the Howard University College of Medicine and served in the Army Medical Corps.

Dr. Wilson, who practiced in Fort Wayne for 45 years, was on the staffs at the city's three hospitals. He was active in civil rights and served as a physician in the march to Selma, Ala., with Dr. Martin Luther King Jr. He also collected supplies for the march before he joined in. Dr. Wilson helped found the Frontiers Club to provide wheelchairs to people who couldn't afford them. He received the Marjorie D. Wickliffe Award in 1995 from the Fort Wayne branch of the National Association for the Advancement of Colored People. □

Dr. Myron H. Weinberger, professor of medicine and director of the Hypertension Research Center at the Indiana University School of Medicine, has received the Robert Tigerstedt Award from the American Society of Hypertension. The award is given every two years for outstanding research in hypertension.

Dr. Dung D. Nguyen, a resident in the Department of Anesthesiology at the Indiana University School of Medicine and an ISMA alternate trustee, was co-author of an article titled "Medical Student Abuse During Third-Year Clerkships" that was published in the Feb. 7, 1996, issue of the *Journal of the American Medical Association*.

Dr. Richard C. Rink of the James Whitcomb Riley Hospital for Children and **Dr. Tim E. Taber** of Methodist Hospital in Indianapolis received research grants from the National Kidney Foundation of Indiana. Dr. Rink's research project is "The Natural History of Nephrocalcinosis in the Premature Infant," and Dr. Taber's project is "Use of Low Molecular Weight Heparin (Enoxaparin) in the Prevention of Neointimal Hyperplasia at the Venous Anastomosis in PTFE hemodialysis Arterio-Venous Conduits (Grafts)."

Accomplishments and activities of physicians at the Indiana Hand Center of Indianapolis include the following: **Dr. James W. Strickland** was the guest lecturer at the annual John F. LeCocq Lectureship in Orthopaedics in Seattle, Wash.; his talks included "Specialization: The Past, the Present, the Future" and "The Scientific Rationale of Improved Flexor Tendon Repair." Dr. Strickland presented the first

Physician Recognition Award recipients

The following ISMA physicians are recent recipients of the AMA's Physician Recognition Award. This award is official documentation of Continuing Medical Education hours earned and is acceptable proof in most states requiring CME in re-registration that the mandatory hours of CME have been accomplished.

November 1995

Andrews, Ronald K., Greenfield
Baker, Mason R., Evansville
Castor, Conrad P., Schererville
Combs, Kenneth G., Evansville
Davison, Bruce A., Columbus
Dolembo, John M., Zionsville
Egnatz, Charles D., Schererville
Goyne, Cheryl, Valparaiso
House, Jerry L., Indianapolis
Hutter, George E., Carmel
Irck, Robert M., Bloomington
Kamen, Jack M., Indianapolis
Kelly, George G., Munster
Levine, Michael D., Carmel
Lewis, Merral B., Evansville
Marnocha, Kenneth E., Zionsville
McAree, Francis E., Indianapolis
Nakamura, Takamitsu, Munster
Rayes, Hassan, Princeton
Sasso, Rick C., Indianapolis
Spence, William C., Bloomington
Storm, Richard M., Indianapolis
Willage, Mark B., Madison
Zeph, Richard D., Carmel

December 1995

Brantly, James M., Indianapolis

Byrne, Frank D., Fort Wayne
Diaz, David R., Indianapolis
Domingo, Ricardo C., Greensburg
Ferree, Mary M., Indianapolis
Frost, Marc L., Indianapolis
Goode, Roy L., Columbus
Mellinger, Michael O., LaGrange
Munoz, Jose C., Fort Wayne
Poor, Maria C., Indianapolis
Titcomb, Clifton P., Fort Wayne
Von Stein, G. Alan, Trafalgar
Zehr, Brian P., Fort Wayne

January 1996

Brown, Michael R., Terre Haute
Crabb, Daniel G., Carmel
Feldman, Howard E., Munster
Gelfman, Daniel M., Anderson
Healey, Diane W., Carmel
Kintanar, Thomas A., Fort Wayne
Markham, Raymond E., Indianapolis
Masbaum, Ned P., Carmel
Mattox, Dean L., Angola
Nicholas, Thomas D., Rockville
Sartore, Gilbert A., Evansville
Vorwald, Mary J., Zionsville
Wang, Arthur F., Mishawaka
Wass, Justin L., Franklin

Daniel Riordan Lectureship at Tulane University in New Orleans; he spoke on "Current Trends in Flexor Tendon Repair" and "The Daniel Riordan Lecture: Specialization in Orthopaedics." Dr. Strickland was reelected to the board of directors of the American Academy of Orthopaedic Surgeons. **Dr. Hill Hastings II** received the Innovation Award for his contributions to the AO Hand Study Group; he was recognized for his contribution in the development of the distal radius plate and percutaneous forceps and for his

contributions to the AO Hand Study Group of the Technical Commission. **Dr. Robert M. Baltera** and **Dr. Jeffrey A. Greenberg** have passed the Certificate of Added Qualification in hand surgery. Dr. Greenberg authored a paper titled "Salvage of the Failed Darrach Procedure" that was published in the November 1995 issue of the *Journal of Hand Surgery*. Dr. Greenberg spoke on "Dynamic Dissociative Scapholunate Instability" as part of a panel on carpal instability at the annual meeting of the American

Association of Hand Surgery in Palm Springs, Calif.

Dr. Rick C. Sasso of Indianapolis Neurosurgical served as a faculty member at an AO spinal instrumentation course in Paoli, Pa.; he lectured on transarticular screw fixation of the C1-C2 joint and anterior fixation of odontoid fractures.

Dr. Douglas J. Van Putten, a LaPorte ophthalmologist specializing in plastic, reconstructive, cosmetic and laser surgery, was appointed to the Committee of

Young Surgeons of the American College of Surgeons.

Dr. Rhonda S. Trippell of Bloomington was named a diplomate of the American Board of Obstetrics and Gynecology.

Accomplishments and activities of physicians at Northside Cardiology in Indianapolis include the following: **Dr. Thomas J. Linnemeier** spoke on "OSTI: Optimal Stent Implantation Protocol" during International Congress IX on Endovascular Interventions in Scottsdale, Ariz.,

and gave a presentation on "The Active Guide Catheter: A Lost Art Form or Obsolete Technology" at the Andreas Gruentzig Society meeting in Aruba. **Dr. Linnemeier** was appointed governor for Indiana and Michigan for the Society for Cardiac Angiography and Interventions. **Dr. Eric Prystowsky** co-chaired the International Review course on Cardiology for Chinese physicians in Beijing; he also gave four presentations and participated in a radiofrequency ablation. **Dr.**



Evan Scott Melrose, a student at the Indiana University School of Medicine, receives an American Medical Association/Glaxo Wellcome Achievement Award from Nancy W. Dickey, M.D., chair of the AMA's Board of Trustees. The award was presented at the AMA's National Leadership Conference. Melrose has officially represented IU at several national and state conferences through his involvement with many organizations. He successfully led grassroots efforts to lobby Indiana Congressional delegates and participated in the AMA government relations internship in Washington, D.C. He founded the unique program, "Project Magic," which conducts physical therapy for children through teaching them magic.



Gregory C. Risk, M.D., a third-year emergency medicine resident at Methodist Hospital in Indianapolis, receives the American Medical Association/Glaxo Wellcome Achievement Award from Nancy W. Dickey, M.D., chair of the AMA's Board of Trustees. The award was presented at the AMA's National Leadership Conference. Dr. Risk serves as the co-chair of the Methodist Hospital's Lifeline Helicopter/Emergency Medical Services Committee. He has been active in the Indiana State Medical Association and is current president of the ISMA Resident Medical Society. He has served as a delegate to the AMA. Dr. Risk has served as the Emergency Medicine Resident Association representative to the Society for Academic Emergency Medicine's Residency Committee.

Morton Tavel conducted a seminar on "Cardiac and Pulmonary Auscultation" in Chicago under the auspices of the American College of Chest Physicians. **Dr. Richard Gordon** was co-author of an article titled "Valvulitis Involving a Bioprosthetic Valve in a Patient with Systemic Lupus Erythematosus" that was published in the January/February 1996 issue of the *Journal of the American Society of Echocardiography*.

Accomplishments and activities of physicians at the Methodist Sports Medicine Center in Indianapolis include the following: **Dr. K. Donald Shelbourne** was moderator for a discussion on anterior cruciate ligament reconstruction rehabilitation at the annual meeting of the American Academy of Orthopaedic Surgeons (AAOS) in Atlanta. **Dr. Thomas E. Klootwyk** was inducted as a fellow of the AAOS at the group's annual meeting in Atlanta; he also spoke on anterior cruciate ligament reconstruction rehabilitation at the meeting. **Dr. Arthur C. Rettig** spoke on "Acute Stable Scaphoid Fractures: Whether to Fix with Herbert Screw" at the AAOS annual meeting; he gave presentations on "Hand and Wrist Injuries in Athletes," "How I Manage Scaphoid Fractures" and "Contribution of the Trunk and Back to Overhead Throwing" at the advanced team physician course sponsored by the American College of Sports Medicine, the American Medical Society for Sports Medicine and the American Orthopaedic Society for Sports Medicine in Scottsdale, Ariz.

Dr. Stephen W. Perkins, an Indianapolis facial plastic and reconstructive surgeon, gave an overview of "Anesthesia for Nasal Surgery and Steps for

Rhinoplasty" and was a panelist discussing "Case Management of Cosmetic and Functional Approach to Rhinoplasty" at "Rhinoplasty '96," sponsored by the Educational and Research Foundation for the American Academy of Facial Plastic and Reconstructive Surgery in Atlanta, Ga. He spoke on "Facial Resurfacing" and "Forehead Lifting: Endoscopic vs. Open" at a symposium sponsored by the American Academy of Facial Plastic and Reconstructive Surgery in Snowmass, Colo.

Dr. Maurice E. Arregui of Indianapolis spoke on laparoscopic and endoscopic ultrasound during a program on "Diagnostic and Interventional Ultrasound for Surgeons" in Orlando, Fla. He was appointed program chairman for the "Ultrasound for the General Surgeon" course held during the World Congress on Endoscopic Surgery in Philadelphia.

Dr. Richard D. Zeph, a Carmel facial plastic surgeon, spoke on open structure tip principles at a symposium sponsored by the American Academy of Facial Plastic and Reconstructive Surgery in Snowmass, Colo.

Dr. William Beeson, an Indianapolis facial plastic and reconstructive surgeon, was elected to the American Academy of Cosmetic Surgery Board of Trustees. He spoke on hair transplant using CO₂ lasers, endoscopic facial surgery and anatomy of the forehead and face at the academy's annual scientific meeting.

Dr. Greg Hardin of SCORE (Specialty Centers for Orthopaedic and Rehabilitative Excellence) in Indianapolis presented a lecture on holmium laser assisted capsular shift shoulder stabilization surgery and was course faculty for the

cadaver lab at the Musculoskeletal Laser Society meeting in Lake Tahoe, Nev.

Dr. Vidyasagar Tumuluri, an Indianapolis hand surgeon, received a plaque from the March of Dimes for raising \$56,000 for Walk America.

Dr. Miles J. Jones, a LaPorte pathologist, was awarded status as a Diplomate: Board Certified Forensic Examiner of the American Board of Forensic Examiners.

Dr. Rama Jager, medical director of Colon and Rectal Care in Indianapolis, is the co-editor of a new textbook titled *Laparoscopic Colorectal Surgery*, available through Churchill Livingstone.

Dr. John F. Williams Jr., professor of medicine and associate dean at the Indiana University School of Medicine and director of Wishard Health Services, received the Distinguished Fellowship Award from the American College of Cardiology. The award is given to a fellow of the college who has performed outstanding service in the interest of the college.

Dr. Douglas P. Zipes, distinguished professor of medicine and professor of pharmacology and toxicology at the Indiana University School of Medicine, has received the Distinguished Scientist Award from the American College of Cardiology. He was honored for his research on the role of the autonomic nervous system in the control of the normal and the pathological heart.

Dr. Frank P. Lloyd Sr. of Indianapolis received a Drum Major Award from the Circle City Frontiers Service Club. He was honored for his outstanding leadership in community service.

Dr. Thomas P. O'Rourke of Vincennes has been certified by the American Board of Obstetrics and Gynecology.

Dr. W. Rodger Funderburg Jr. of Vincennes has been certified by the American Board of Anesthesiology.

Dr. Guy H. Waldo, a Bedford internist, has retired. He was one of the original physicians who joined Edgewood Clinic in 1958.

Dr. Olaf B. Johansen of Mooresville, **Dr. Jonathan L. Schmidt** of Muncie and **Dr. Rami Saydjari** of Crawfordsville were named fellows of the American College of Surgeons.

Dr. Henry Bock, an emergency medicine specialist at Methodist Hospital in Indianapolis, received the John Kassis Award from the Marion County Hazardous Materials Responders. The award honors a citizen who has made extraordinary contributions to the program.

Dr. Scott B. Edwards, medical director of the Occupational Medicine Network of St. Joseph's Medical Center in South Bend, has become board certified in internal medicine.

Dr. Eldon E. Baker has retired after 37 years in family practice in Delphi.

Dr. Gary A. Frick of the Heart Center of Marion has become board certified in cardiology.

Dr. Ronald H. Scheeringa, a Fort Wayne internist, was elected a fellow of the American College of Physicians.

New ISMA members

Sudha Alankar, M.D., Scottsburg, pediatrics.

Suresh Alankar, M.D., Scottsburg, general surgery.

Timothy J. Aldridge, D.O., Plymouth, internal medicine.

Stephen D. Allen, M.D., Indianapolis, anatomic pathology.

Tonya L. Allen, M.D., Muncie, clinical pathology.

Ifeanyi B. Anigbo, M.D.,

Gary, family practice.

Shahabul S. Arfeen, M.D., Gary, nephrology.

Stephen L. Baker, M.D., Columbus, neurology.

Andrew R. Baron, M.D., Mishawaka, family practice.

Todd A. Baxter, M.D., Columbus, pediatrics.

Stephen H. Berghofer, M.D., Elwood, family practice.

Brion A. Bertsch, M.D., Muncie, family practice.

Padmanaabha R. Betina, M.D., Goshen, internal medicine.

Anand D. Bhuptani, M.D., Terre Haute, pulmonary diseases.

Suzanne Bielski, M.D., Fishers, pediatrics.

Richard L. Bohnenkamp, M.D., Muncie, anatomic/clinical pathology.

Joel Braunstein, D.O., Elkhart, family practice.

Robert J. Champer, M.D., Muncie, ophthalmology.

Lori L. Checkley, M.D., South Bend, family practice.

Kenneth Y. Chern, M.D., Muncie, orthopaedic surgery.

Stephen D. Coleman, M.D., Muncie, family practice.

Jeffrey C. Cooper, M.D., Lafayette, urological surgery.

Alain J. Couturier, M.D., Mishawaka, internal medicine.

Goran Cvijanovic, M.D., Muncie, internal medicine.

Francis M. Cyran, M.D., Auburn, psychiatry.

Bart J. DeBrock, M.D., Vincennes, urological surgery.

Maria G. Del Rio, M.D., Evansville, neonatal-perinatal medicine.

Douglas J. Delafield, M.D., Franklin, family practice.

Stephen R. Depperman, M.D., Indianapolis, ophthalmology.

Leah G. Dickerson, M.D., Jeffersonville, psychiatry.

Patrick Doolan, M.D., Leba-

non, family practice.

Francis Duque, M.D., Jeffersonville, anesthesiology.

Husameddin R. El Bakri, M.D., Gary, family practice.

Susan M. Emmick, M.D., Plainfield, pediatrics.

Gene V. Fedor, M.D., Griffith, orthopaedic surgery.

James M. Forde, M.D., Valparaiso, diagnostic radiology.

Frank W. Fortuna, M.D., Indianapolis, family practice.

Dennis E. Frazier, M.D., Michigan City, family practice.

Edward T. Fry, M.D., Indianapolis, cardiovascular diseases.

Tom N. Galouzis, M.D., Hobart, general surgery.

David G. Gross, D.O., Merrillville, ophthalmology.

Ashraf H. Hanna, M.D., Fort Wayne, family practice.

Paras Harshawat, M.D., Terre Haute, psychiatry.

Kenneth V. Harvey, M.D., Evansville, psychiatry.

Steven R. Hayes, M.D., Evansville, anesthesiology.

Sandra K. Hensley, M.D., Sellersburg, pediatrics.

John C. Hilgenberg, M.D., Leesburg, anesthesiology.

David J. Huddleston, M.D., Muncie, clinical pathology.

Eric M. Humphreys, M.D., Vincennes, anesthesiology.

Jerry L. Jamison, M.D., Clarksville, internal medicine.

Leo Dean Jansen, M.D., Warsaw, orthopaedic surgery.

Rosemarie M. Jeffery, M.D., Muncie, internal medicine.

Steven L. Jones, M.D., Muncie, pathology, hematology.

Ramesh B. Kalari, M.D., Bedford, gastroenterology.

John D. Keen, M.D., Greenwood, family practice.

Rizwan R. Khan, M.D., Winchester, pediatrics.

Gail S. King, M.D.,

■ people

Noblesville, obstetrics and gynecology.

Deanna M. Knoll, D.O.,
Plymouth, pediatrics.

Philip C. Krause, M.D.,
Lafayette, cardiovascular diseases.

Suresh Lakshminarayanan,
M.D., Hammond, nephrology.

Howard S. Lazarus, M.D.,
New Albany, ophthalmology.

Carl H. Linge, M.D., Evansville, radiology.

Scott A. Lintner, M.D., Indianapolis, orthopaedic surgery.

Michael A. Litwiller, M.D.,
Greenwood, child psychiatry.

Won-Shick Loh, M.D.,
Munster, cardiovascular diseases.

Lynn M. Losby, M.D., North Manchester, family practice.

Polly E. Lybrook, M.D.,
Bloomington, psychiatry.

William J. Lynn, M.D.,
Indianapolis, family practice.

Norman G. MacDonald, M.D.,
Warsaw, family practice.

Calvin J. Maestro Jr., M.D.,
Indianapolis, family practice.

A. Gabriel Maijub, M.D.,
Peru, family practice.

Anne M. Majewski, D.O.,
LaPorte, pediatrics.

Lance A. Maki, M.D., Plymouth, obstetrics and gynecology.

Paul R. Mark, M.D., South Bend, obstetrics and gynecology.

Steven S. Maves, M.D.,
Indianapolis, anesthesiology.

Stephen L. McConnell, M.D.,
Bloomington, emergency medicine.

Katrina K. McGillivray, D.O.,
Columbus, family practice.

Jonathan S. McGlothan, M.D.,
Muncie, ophthalmology.

John G. McGue, M.D.,
LaPorte, diagnostic radiology.

Joseph E. Meiners, M.D., New Albany, pediatrics.

Stacey E. Merritt, M.D.,
Corydon, emergency medicine.

Jane E. Messemer, M.D.,

Muncie, pediatrics.

Mark A. Meyer, M.D., Indianapolis, family practice.

Norman Mindrebo, M.D., Indianapolis, orthopaedic surgery.

John P. Morgan, M.D., Evansville, orthopaedic surgery.

M.A. Karim Moshref, M.D., Fort Wayne, family practice.

Michael W. Mull, M.D., Peru, family practice.

Douglas M. Murphy, M.D., Munster, orthopaedic surgery.

Jean P. Orr, M.D., Noblesville, anesthesiology.

Jagdish R. Patel, M.D., Hammond, internal medicine.

David L. Patterson, M.D., Indianapolis, allergy and immunology.

Branko D. Pejic, M.D., Gary, family practice.

Jeffrey M. Peterson, M.D., Indianapolis, family practice.

John P. Phillips, M.D., Indianapolis, child neurology.

James L. Qualkinbush, M.D., Indianapolis, anesthesiology.

Vijay M. Raghavan, M.D., Hardinsburg, internal medicine.

Robert J. Rapoport, M.D., Indianapolis, radiology.

David K. Reyburn, M.D., Rochester, pediatrics.

Dean B. Ricks, M.D., Muncie, clinical pathology.

David A. Rusk, M.D., Fort Wayne, pediatrics.

Helena L. Sagalovsky, M.D., Crown Point, internal medicine.

Joseph Saleeb, M.D., Rushville, internal medicine.

Debra F. Sanders, M.D., Argos, family practice.

Reginald Sandy, D.O., Vincennes, internal medicine.

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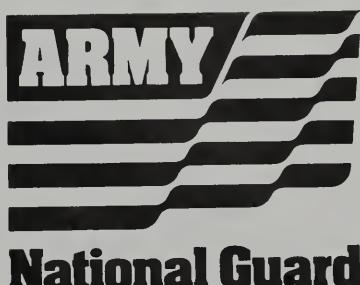
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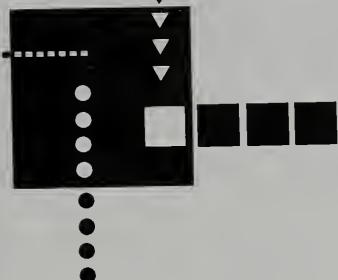
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